

BADGER STATE

Smoke Signals

For Radio Amateurs • By Radio Amateurs

Published Monthly Since 1969 • Our 23rd Year • Single Copy: \$1.25

Return Address:
Kenneth A. Ebnetter
822 Wauona Trail
Portage, WI 53901

Bulk Rate
U.S. Postage
PAID
Permit #265
Portage WI 53901

Third Class Mail • Forwarding and Return Postage
Guaranteed • Address Correction Requested

Vol. 23 No. 1 - 265th Consecutive Monthly Issue - Baraboo, Wisconsin - January 1992

Musa Manarov, U2MIR/UV3AM, Hospitalized



Russian Cosmonaut Musa Manarov, U2MIR/UV3AM, at left in this photo, has informed Vern "Rip" Riportella, WA2LQQ, that he is in a Moscow hospital as the result of a latent effect of his long-term weightlessness. Manarov has logged over 500 total days in earth orbit. Musa is apparently responding well to treatment and is probably now at home to continue his convalescence. "Get well" cards for Musa may be sent via Rip, WA2LQQ, P.O. Box 177, Warwick, NY 10990. Also in the photo, taken Nov. 8, 1991 at the Johnson Space Center in Houston, are Boris Stepanov, UW3AX (deputy engineer-in-chief of *Radio Magazine*), and Astronaut Ken Cameron, KB5AWP. Cameron, at right, who piloted the first U.S. shuttle mission carrying an all-ham crew, is showing them the airlock of the Full Fuselage Trainer.

- Info excerpted from Westlink Report and Space News Roundup (Johnson Space Center)/NASA Photo

Happy New Year!

Commission Reaffirms Position on RFI

Unless you live on 13 acres, just when you think you've cured every RFI problem, another one pops up. There's hope - ARRL's all-new book, *Radio Frequency Interference: How to Find it and Fix It* is near completion and expected to be available in about six weeks. It's a different kind of ARRL book - much of it written by outside experts in various fields (including one from Wisconsin - BSSS editor). The book will have a lot of new information on interference techniques never before published.

Meanwhile, FCC, in a reply to an aggrieved neighbor of an Arizona amateur, has reaffirmed its position on this subject: That the FCC, on authority of the U.S. Congress, has jurisdiction, and that amateurs who are *not* at fault for interference to consumer devices will not be made to suffer as a result.

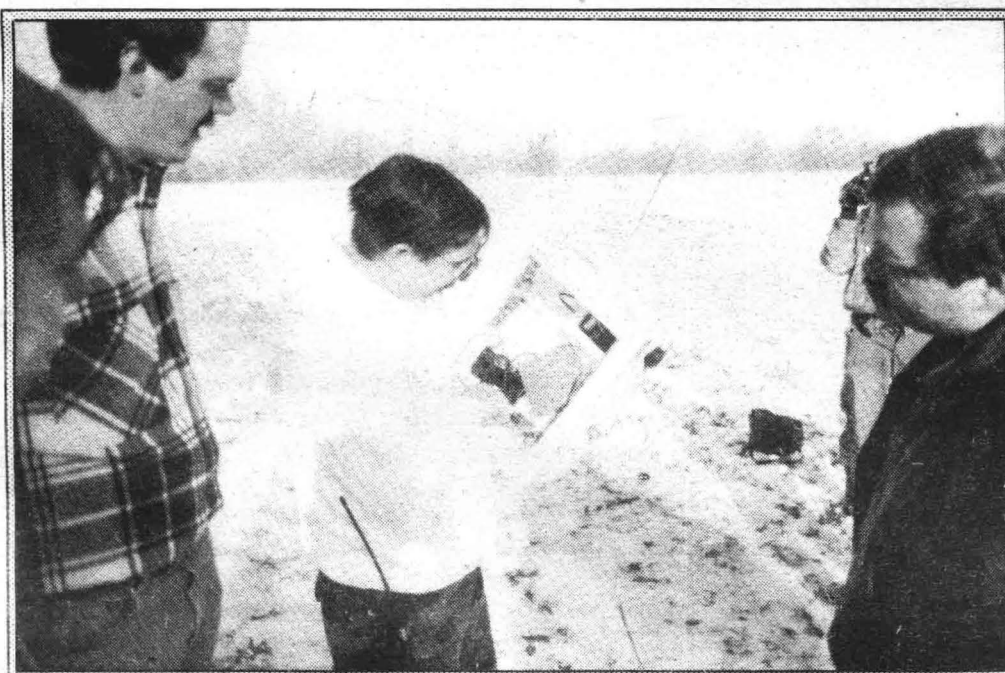
On November 27, FCC Special Services Division Chief Robert McNamara replied to a complainant in Tucson, Arizona, on this very subject. The complainant already has taken the case through appeals court, which found that the FCC had sole jurisdiction. McNamara replied to the complainant's contentions that laws concerning RFI are inadequate and that Congress erred in giving the FCC "exclusive jurisdiction over interference to home electronic equipment, systems, and devices."

McNamara wrote:

"Section 302(a)(2) of the Communications Act of 1934, as amended, 47 U.S.C.302(a)(2) authorizes the Commission to regulate home electronic equipment and systems by establishing minimum performance standards for such equipment to reduce their susceptibility to interference from radio frequency energy....

"The conference Report associated with this action indicates that 'the legislation does not mandate Commission exercise of this authority; that decision is well within the technical expertise of the agency.' The Report also indicates that the Commission, in exercising this authority, is expected to balance the cost of improving the performance of a device against the overall public benefit to be gained....

Please turn to page 13



December 7 B.C.A.R. Flight Works; Package is Recovered in Good Condition

Although the latest balloon-carried Amateur Radio experiment package launched by Joe Mayenschein, WB9-SBD, from Hillsboro, WI, made an early descent, the equipment performed well, with one video reception report from Arkansas. Read more on page 8.

Photo by Ken Ebnetter/K9EN

ELMER

By Rich Regent, K9GDF



ON THE INSIDE

What's Happening	2
Wisconsin Nets Association	4
Here and There	5
Dunn County Disaster Drill	6
Amateur Radio Space News	6
From the Editor	7
New Products	7
Riverland Amateur Radio Club	9
Yellow Thunder Amateur Radio Club	9
Eau Claire Amateur Radio Club	9
Racine Megacycle Club	10
Watts Snoo (Central WI Radio Amateurs)	11
Taylor County Area Amateur Radio Club	11
Mancorad Radio Club	12
Northern Wisconsin Radio Club	13
The Wisconsin Packeteer	14

Swapfests

and Other Social Events

SATURDAY, JANUARY 11, 1992. Midwinter Swapfest, sponsored by the West Allis RAC, at Waukesha Exposition Center, Waukesha, WI. For more information see the ad in November BSSS.

SUNDAY, FEBRUARY 8, 1992. Midwinter Madness Hobby Electronics Show, Blain Minn. Robbinsdale ARC, P.O. Box 22613, Robbinsdale, MN 55422.

SATURDAY, MARCH 22, 1992. Jefferson County Fairgrounds, Hwy. 18 West, Jefferson, WI sponsored by the Tri-County ARC. Contact TCARC, W9MOB, 213 Frederick, Fort Atkinson, WI 53538.

SATURDAY, MAY 2, 1992. The Ozaukee Radio Club will sponsor its 14th annual Cedarburg Swapfest, at the Circle-B Recreation Center, Hwy. 60 and Cty. I. Contact ORC Swapfest, 11448 Laguna Dr., Mequon, WI 53092. (414) 242-4995.

SATURDAY, JULY 18, 1992. Eau Claire Amateur Radio Club hamfest, at the Chippewa Falls Fairgrounds. Contact: Lis Searing, N9EQR, 1129 McKinley Rd., Eau Claire, WI 54701. (715) 834-1303.

SUNDAY, OCTOBER 11, 1992. The KMRA 1991 Computer and Ham Radio Swapfest will be held at the Waukesha County Exposition Center, Hwys. J and FT in Waukesha, WI. Contact KMRA Swapfest, P.O. Box 411, Waukesha, WI 53187-0411.

As a service to our readers, this section of Badger State Smoke Signals is available without charge to list your upcoming Swapfest, Hamfest, dinner, picnic, party or other event of interest to Radio Amateurs in Wisconsin and nearby areas. Send information on your event to Kenneth A. Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. In addition, space is available at attractive rates on our advertising pages. For information on rates and requirements for our advertising pages, please contact K9ZZ or K9EN.

Club Meetings



Due to space limitations we cannot always carry the full listing of Wisconsin and area club meetings. Please save the following list-

Badger State Smoke Signals

Amateur Radio Education and Information

CHAIRMAN: Kenneth A. Ebner, K9EN, 822 Wauona Trail, Portage, WI 53901. Telephone (608) 742-3560.

EDITOR: Jim Romelfanger, K9ZZ, 412 1/2 Ash Street, Baraboo, WI 53913. Telephone (608) 356-4031.

TREASURER: Jim Decker, WB9UQT, P.O. Box 337, Baraboo, WI 53913-0337.

CONTRIBUTING EDITOR: Richard R. Regent, K9GDF, 5003 South 26th Street, Milwaukee, WI 53221.

Subscriptions

1 year	(12 issues)	\$9.75
2 years	(24 issues)	\$18.00
3 years	(36 issues)	\$26.00

Special club package reduced rates are available. For information, contact Ken Ebner, K9EN.

When to Send It

The closing date for each issue is the first of the month for the next month's issue. For example, the closing date for the June issue is May 1.

The only exception is for participating clubs. Participating clubs are requested to send their material no later than SEVEN DAYS after the club's meeting. For

ings for your future reference. We hope to have the full listing at least three times a year, and will carry any changes or additions between full listings.

BADGER AMATEUR RADIO SOCIETY (W9YT - U. W. - MADISON)

Monthly while school in session - 2nd Wed. - 7:30 p.m. - B-314, Electrical Engineering Bldg.

CENTRAL WISCONSIN RADIO AMATEURS, LTD. (STEVENS POINT) Second Wed..

EAU CLAIRE AMATEUR RADIO CLUB

2nd Tue. - 7:30 p.m. - Parks and Recreation Bldg., Oxford and 1st Streets, Eau Claire. Hams, guests welcome. Travelers welcome on wide area club repeater K9UXP, 146.31/91.

FOUR LAKES AMATEUR RADIO CLUB (MADISON WI)

First and third Tues - 7:30 p.m. - Red Cross Bldg., 4860 Sheboygan Ave., room "C" downstairs. It is the next building west of the Hill Farms State Office building. The meetings start promptly at 7:30 pm.

FOX CITIES AMATEUR RADIO CLUB

Third Mon. - 7:00 p.m. - Roosevelt Jr. High School, 318 E. Brewster St., Appleton. Info: (414) 766-3886.

GREATER MILWAUKEE DX ASSOCIATION

Fourth Mon. of the month at 7:30 p.m. Contact Jerry Scherkenbach, N9AW, at (414) 481-8831 for meeting location.

GREEN BAY MIKE AND KEY CLUB

Second Thur. 7:30 pm - Media Services area of the J. M. Science Building at St. Norbert College in DePere.

GREEN FOX AMATEUR RADIO CLUB

Third Mon. - 7:30 p.m. - Green Lake Town Hall, int. of county hwy. K and N.

KETTLE MORaine RADIO AMATEURS

Second Fri., 7:30 p.m. at the Waukesha County Technical College, Campus Science Building, Room 102. Talk-in on the N9KS 147.39 repeater.

example, if a club meets on the 4th of the month, the material should be sent no later than the 11th of that month. This material is to be sent to the Editor.

Where to Send It

Address changes and corrections should be sent to Ken Ebner.

Editorial material, photographs, feature articles, display ads, and exchange papers should be sent to Jim Romelfanger.

Inquiries about advertising should be directed to Ken Ebner.

Swapfest information should be sent to Ken Ebner. Swapfest ads should be sent to Jim Romelfanger.

Subscriptions should be sent, with check or money order, to Jim Decker.

Conditions for Reprinting Material from Badger State Smoke Signals

Permission is hereby granted to reprint articles from *Badger State Smoke Signals*, providing credit is given to the original author, publication in which the article first appeared, and to *Badger State Smoke Signals*. This credit is mandatory, and no material may be printed unless it is given. This newspaper is produced by volunteer Radio Amateurs, and is non-profit. This newspaper is mailed from Portage, WI 53901.

Editorial Disclaimer

The opinions expressed in editorials, guest editorials, columns, articles, and letters from readers are the opinions of the authors only, and do not, unless otherwise stated, express or imply endorsement by *Badger State Smoke Signals*, or by any other individual or organization.

LAKESHORE RPTR. ASSN.

Last Tue., Jan., Apr., Jul., & Oct., 7:30 p.m. Red Cross Bldg., 4521 Taylor Ave., Racine, WI.

MADISON AREA REPEATER ASSN

The meeting schedule for 1991 is as follows: Nov. 11.

MANITOWOC COUNTY RADIO AMATEURS

Directors Meeting: First Wed.

General meeting: Second Wed.

Both meetings held at 7:30 p.m. in the basement, Manitowoc City Hall, 817 Franklin St., Manitowoc.

MEMONONEE FALLS AMATEUR RADIO CLUB

Last Tue. - Doors open 7:30 p.m., meeting begins 8:00 p.m. - Security Savings and Loan, Menomonee Falls. Amateurs and guests welcome.

MILWAUKEE RADIO AMATEURS CLUB

Fourth Thur. - Room #280 Wauwatosa East High School, located at 74th and Milwaukee Ave. in Wauwatosa. No meetings in July, August and December.) Meetings begin at 7:00 pm.

NORTHERN WISCONSIN RADIO CLUB

4th Tue. - 7:30 p.m., Sept. through April. Peppermill Restaurant, Thunderbird Mall North, Menomonie, WI. Guests welcome.

NORTHWOODS ARC (RHINELANDER WI)

Third Tue.. Doors open at 7:00 p.m. Meeting at 7:30 p.m. South Park School, Rhineland, WI. Talk-in on 146.93/.34. All interested visitors to the Northwoods are welcomed.

OZAUKEE RADIO CLUB

Second Wed. - 7:30 p.m. - Saukville Community Center.

QCWA - WISCONSIN CHAPTER #55

Contact Robert Shady, KB9XR, Treasurer, 905 E. Doty Place, Milwaukee, WI, 53207. For information about meeting dates or joining QCWA Chapter #55. The Wisconsin Chapter holds Spring and Fall dinner meetings.

QCWA - SOUTHEAST WISCONSIN CHAPTER #162

Meets third Mon. monthly, 7:30 p.m., Around the Clock Restaurant, 3012 Rapids Drive, Racine.

RACINE MEGACYCLE CLUB

Second Mon., 7:30 p.m., Red Cross Bldg., 4521 Taylor Ave., Racine, WI

RIVERLAND AMATEUR RADIO CLUB

First Tue. - 7:45 p.m. - Onalaska Community Center, Onalaska WI.

ROCK RIVER RADIO CLUB

Monthly - first Tue. - 7:00 p.m. at Dodge County Sheriff's Department, 141 N. Main, Juneau, WI.

ARES Net: 146.04/146.64 Mon.s at 7:30 p.m. Sat.s on 7277 KHz at 10:30 a.m.

SHEBOYGAN COUNTY AMATEUR RADIO CLUB

Second Tue. - 7:00 p.m. - Sheboygan Red Cross/Boy Scout Bldg., 2032 Erie Ave.

SOUTH MILWAUKEE AMATEUR RADIO CLUB

First Wed. - Legion Post 434, Shepard Ave., Oak Creek WI. Auctions in March and October.

TAYLOR COUNTY AREA AMATEUR RADIO CLUB (TCAARC) MEDFORD

Usually the 2nd Thur. of the month at 7:00 PM sharp. Usual location: emergency government meeting room, basement of Sheriff's Annex to Taylor County Courthouse, 2nd and Ogden Sts., Medford, WI. Talk-in on 147.75/15 or 145.27(-600) repeaters. Amateurs & guests are welcome. ARS Net, Wed. nights at 8:30 PM on 147.75/15. For info contact: Rolland Walty, W9LEE, W4117 Hwy. 102, Westboro, WI 54490. (715) 427-3492

TRI-COUNTY AMATEUR RADIO CLUB

Sun. of each month. Meetings are held at 7:00 p.m., at the Trinity Lutheran Church, 314 Barrie, Fort Atkinson, WI.

WASHINGTON COUNTY AMATEUR RADIO CLUB

Tue.: ARES/RACES - 7:30 p.m., club meeting - 8:00 p.m., Town of Polk Town Hall, Hwy. 60 and

Scenic Dr. Net on 146.13/73 every Mon. 7:30 p.m.

WATERTOWN AMATEUR RADIO CLUB

First Thur. of the month at 7:00 p.m., The Watertown Public Library, 100 S. Water St., Watertown, WI.

WAUPACA AMATEUR RADIO CLUB

First Sat. in March, June, September and December, at 9:30 a.m. at the Waupaca Fire Station in downtown Waupaca.

"OQ First Tue." - A social gathering and dutch treat luncheon at the King's Table in King, WI, on Highway QQ just south of highways 10 and 54 on the west side of Waupaca.

WEST ALLIS RADIO AMATEUR CLUB

Second Tue. - 8:00 p.m. - St. Peters Episcopal Church, 7929 Lincoln Ave. Entrance is at rear of building on alley.

WISCONSIN ASSOCIATION OF REPEATERS

Meetings are held Quarterly, with time and location to be announced. Repeater licensees, trustees, and sponsors are urged to attend W.A.R. meetings. All interested parties are welcome, as well.

WISCONSIN VALLEY RADIO ASSOCIATION (WAUSAU)

First Tue. - 7:30 p.m. - Location varies; info on 146.04/64, Wausau.

YELLOW THUNDER AMATEUR RADIO CLUB (BARABOO)

Days rotate: Scheduled meeting dates:
All meeting at the Baraboo Civic Center, Baraboo, WI. Meetings start 7:30 p.m.

Let Badger State Smoke Signals know your club's meeting dates, and we will let our readers know of your meetings and activities. There may be Amateurs in your area interested in joining your club, or members of other clubs interested in making an interclub visit.

The Test Point

Amateur Radio Examination Locations and Schedules in the Wisconsin Area

The following are known locations where Amateur Radio license examinations are scheduled in the Badger State area.

January 11, 1992	Marshfield, WI
January 11, 1992	Madison, WI
January 11, 1992	Oak Forest, IL
January 11, 1992	Houghton, MI
January 13, 1992	Eleventh, MN
January 14, 1992	Oak Forest, IL
January 18, 1992	Milwaukee, WI (BE)
January 18, 1992	Appleton, WI
January 18, 1992	Clinton, IA
January 18, 1992	Bolingbrook, IL
January 19, 1992	Des Moines, IA
January 19, 1992	Dixon, IL
January 21, 1992	Milwaukee, WI (MRAC)
January 25, 1992	East Grand Forks, MN
February 7, 1992	Blaine, MN
February 8, 1992	Madison, WI
February 8, 1992	Dixon, IL
February 8, 1992	Oak Forest, IL
February 15, 1992	Milwaukee, WI (BE)
February 18, 1992	Milwaukee, WI (MRAC)
March 14, 1992	Madison, WI
March 14, 1992	Marshfield, WI
March 17, 1992	Milwaukee, WI (MRAC)
March 21, 1992	Milwaukee, WI (BE)
March 28, 1992	Menomonie, WI
April 11, 1992	Madison, WI
April 18, 1992	Milwaukee, WI (BE)
April 21, 1992	Milwaukee, WI (MRAC)
May 2, 1992	Ozaukee, WI (BE)
	Ozaukee swapfest
May 9, 1992	Marshfield, WI
May 19, 1992	Milwaukee, WI (MRAC)
June 16, 1992	Milwaukee, WI (MRAC)
July 11, 1992,	Marshfield, WI
July 21, 1992	Milwaukee, WI (MRAC)
August 18, 1992	Milwaukee, WI (MRAC)
September 12, 1992	Marshfield, WI
September 15, 1992	Milwaukee, WI (MRAC)
October 20, 1992	Milwaukee, WI (MRAC)
November 14, 1992	Marshfield, WI

November 17, 1992 Milwaukee, WI (MRAC)
November 7 1992 Menomonie, WI
December 15, 1992 Milwaukee, WI (MRAC)
Monthly, First Sat. Racine, WI
(except January, July & August)
Monthly, Last Sat. Tomahawk, WI
(January thru October only)
Monthly, Third Sat. Loves Park, IL

Many of the larger Swapfests/Hamfests offer exam sessions. If not shown above contact the sponsoring club in the Swapfest column on page 2.

GENERAL RULES

FOR MOST EXAMINATIONS:

Be sure to check with sponsors in the event there are changes and/or errors in the dates or information given.

Most examinations require filing an FCC Form 610 and advance registration at least 30 days before the exam date. (Some VECs permit walk-ins. Check with sponsor.)

To register, you must first secure a copy of the current FCC Form 610 and fill it out completely (AND CORRECTLY). Get your form from an FCC Field Office, the ARRL or Badger State Smoke Signals. Send a \$25 SASE if you request one from the ARRL or BSSS. In most cases, forms can also be obtained from the sponsoring group.

ARRL/VEC examinations require a check for \$5.25 (\$5.40 after Jan. 1, 1992) payable to "ARRL/VEC".

The FCC now requires applicants to show their original Amateur license to the VEC. A copy of your license must be attached to your FCC form 610. You will also be required to have a photo ID, or other acceptable identification.

Technician class licensees must show proof of testing before March 21, 1987, in order to upgrade to General with a code test only.

Additional information is given below.

MILWAUKEE RADIO AMATEURS' CLUB

MRAC/VEC

TUESDAY DATES: At 6:30 p.m. at church, 11709 West Cleveland Ave., West Allis, WI. For Additional Information Contact; Jack Krause, W9JK, 1737 N. 116th St., Wauwatosa, WI 53226. (414) 774-6999 or Les Peterson, W9YCV, 9741 W. Howard Ave., Greenfield, WI 53228. (414) 321-4745.

SATURDAY, January 12, 1992 at the WARAC Midwinter Swapfest. Waukesha Exposition Center, Highways J and FT, Waukesha, WI.

Bring along your original license and two (2) good quality photocopies, plus two forms of identification, such a driver's license, etc. Also required are a pen and \$5.00 for the exam fee. WALK-INS are welcome. To register in advance, use a post card: print the grade of license you are applying for, and your name, address, and telephone number. Send the card to MRAC/VEC, c/o Jack Krause, W9JK, 1737 North 116th Street, Wauwatosa, WI 53226, or to Ed Seruga, KE9JJ, 3840 South 43rd Street #21, Milwaukee, WI 53220. Telephones: (414) 774-6999 or (414) 545-6299.

BADGER EXAMINERS (BE) - MILWAUKEE

Jan. 18, Feb. 15, Mar. 21, & Apr. 18 1992.

May 2, 1992. Ozaukee swapfest. (Ozaukee)

Unless otherwise noted, examinations are administered beginning at 1:00 p.m. to 3:30 p.m. at St. Nicholas Church basement, 5345 N. Green Bay Ave. (2 1/2 blocks south of Silver Spring), Milwaukee. Walk-ins are welcome. CW waiver forms are available. Please send a request with an SASE prior to taking an exam, so it is ready when attending the session. To register in advance, send a post card with your name, test or tests you wish to take, date you wish to take., your call sign, address and telephone number to Badger Examiners, Gary J. Sharbuno, W19M, 5119 W. Willow Rd., Brown Deer, WI 53223. Telephone (414) 355-0237.

MENOMONIE WI - ARRL/VEC

Saturdays: Mar. 28 1992 & Nov. 14, 1992

The Northern Wisconsin Radio Club administers exams from 9 to 11:30 a.m. at the U. W.

Stout Communications Center, 820 South Broadway, Menomonie, WI. Use front entrance of building. Walk-ins are accepted only to extent of available exam materials.

Contact: Jim Ley, NX9F, (715) 235-3998 (H); or (715) 232-1397 (O).

MARSHFIELD, WISCONSIN

1992 dates: Jan. 11, Mar. 14, May 9, Jul. 11, Sep. 12, Nov 14.

Sponsored by the Marshfield Area ARS. Second Saturday every other month, at St. Joseph Hospital, School of Nursing entrance. Room 124. St. Joseph Ave., Marshfield, WI. Walk-ins Welcome. Contact Walter Friant, WBOKIN, 2310 Wal-lonnie Dr., Marshfield, WI 54449.

RACINE, WISCONSIN - ARRL/VEC

Monthly - first Saturday, except

January, July, and August.

Exams are given at 9:00 a.m. at the Red Cross Building, 4521 Taylor Avenue, Racine. Walk-ins are permitted. Inquiries and registrations should be directed to William Firchow, Jr., NW9P, 1912 27th Street, Kenosha, WI 53140, telephone (414) 658-8390.

TOMAHAWK, WI

Last Saturday of every month. Jan. thru Oct.

Tomahawk Volunteer Examiners (ARRL/VEC). Tomahawk, WI. No preregistration required, but appointment would be appreciated. Registration at 8:30 a.m. and testings starts at 9:00 a.m. For location or other information, inquire on 145.43 MHz. repeater or contact: Greg Garner, WA9W, 4088 Highway 51, Harshaw, WI 54529. Telephone (715) 453-7096.

MADISON, WI - ARRL/VEC

Jan. 11, Feb. 8, Mar. 14, & Apr. 11, 1992.

All exams will be held in the Labor Temple at 1610 South Park St., Madison, WI.

Contact: Gari Berliot, (608) 221-2022

STEVENS POINT, WI - ARRL/VEC

Contact: Joe Larson, (715) 344-1182

APPLETON, WI - ARRL/VEC

Contact: Larry Siebers, (414) 788-3823

DUBUQUE, IOWA - ARRL/VEC

The Great River Amateur Radio Club VEs are now field stocked, which means retests can be given immediately.

Exams are held at 9:00 a.m. at the Central Fire Station, 9th and Central in Dubuque. Use the basement entrance on 9th Street. For more info, contact Mike Jozefowicz, NSOU, 2735 Hickory Hill, Dubuque IA 52001, or call Mike at (319) 582-8563. Talk-ins on the 147.84/24 and 147.63/03 repeaters. -- (Thanks Art Evans, KA9KLZ)

LOVES PARK, IL

Third Saturday of every month. Northern Illinois Volunteer Examiners (DeVry VEC). Held at North Suburban District Library, 6340 North Second St. (Hwy. 251), Loves Park, IL. Contact: Dennis G. Eksten, W9SS, 5006 N. Second St., Loves Park, IL 61111. (815) 877-6768.

Contact information on out of state exams (provided by ARRL/VEC).

EASTERN IOWA

Clinton, 319-242-1281, James N Berkey
Des Moines, 515-967-3890, Jim Snapp

NORTHERN ILLINOIS

Oak Forest, 312-247-0650, William Koltz
Bolingbrook, 708-739-6015, Robert Stevens
Dixon, 815-376-5444, Lavern Johnson

UPPER MICHIGAN

Houghton, 906-337-2542, George R Thurner

MINNESOTA

Eveleth, 218-263-4160, Gregg Mihelich
East Grand Forks, 218-773-3289, John Engel
Blaine, 612-459-8678, David Harrell

Wisconsin Nets Association Ltd.

Rob Hummel, WA9ZTY, Secretary • 202 Midvale Drive • Marshall, WI 53559

Wisconsin Nets

Net	WNA	Freq.	UTC	CST	Mgr.
BWN	Yes	3984	1200	0600	W9AYK
BEN	Yes	3985	1800	1200	WB9ESM
WSBN	Yes	3985	2330	1730	K9UTQ
WNN	Yes	3723	0000	1800	KA9FVX
WSSN	Yes	3645	0030	1830	N9BDL
WIN/E	Yes	3662	0100	1900	WB9ICH
WIN/L	Yes	3662	0400	2200	W9NGP
NWTV	Yes	3494	0030	1830	NS9Q
(Rhinelander area)					
6:30 Net	No	01/81	0030	1830	KA9QMC
Gr. Bay	No	72/12	0245	2045	WB9NRK
(Green Bay area)					
ARES	No	4.65/5.25	0200	2000	
(South East/South Central Wisconsin)					
RACES	No	3993.5	1815	1215	WC9AAG
(USB Tuesday and Thursday)					
RACES	No	3993.5	1400	0800	WA9DAY
(LSB Sunday)					

Section Manager's Notes



Richard R. Regent, K9GDF
5003 South 26th Street
Milwaukee, WI 53221

The Rock River RC renews as a Special Service Club.

The Madison ARA SWL Net for shortwave listening and scanner monitoring folks is on 147.15 MHz the first Sunday of every month at 8 p.m.; their regular net is Wednesdays at 9 p.m.

Exams: February 4th in Racine (NW9P); February 8th in Madison (NG9V) and in Milwaukee (W9JK or W9YCV); February 15th in Milwaukee (WI9M); February 29th in Tomahawk (WA9W).

Green Bay Mike and Key Club assists in checking Brown County sirens.

WB9NOV of Madison achieves DXCC status. Newsline, hot Amateur Radio news, is broadcast on 146.67 MHz Sundays at 9:45 a.m. and Mondays at 8:45 p.m., and is heard all around southeast Wisconsin.

KB9GUR/KT, Emily of Madison, is hoping to get the call N9MLE to match her name: "EM-EL-EE".

Monday and Thursday at 9 p.m. the 50.16 MHz net meets for some interesting activities; check in this week.

Please send your news to me.

State-of-the-art electronics: *If you understand it, it's obsolete.*

DXCC Rep in Madison

Herb, W9LA, of Madison, was appointed by ARRL Headquarters as a DXCC Field Representative. Perhaps you might want to arrange to show Herb your first 100 country QSLs, rather than mailing them to Newington, CT. He lives at 6318 Putnam Road, Madison, WI 53711, 608-271-4763.

- Rich Regent, K9GDF

Minutes of WNA Meeting September 7, 1991

Ochsner Park, Baraboo, Wisconsin

The meeting was called to order at 1:15 p.m. by Chairman Don Stenz, K9KSA. Don read the minutes from the last meeting, and WB9YPY moved the minutes be accepted. Seconded by KE9VU; motion carried.

Treasurer's Report: KY9P said there was no income reported since the last meeting, nor were any expenses reported. We are sure that there will be some expenses, as they just haven't been reported yet. Also, from this meeting there will be the park deposit, soft drinks, and beer that must be paid. Treasury is \$189.17. KA9KLZ moved we accept report, seconded by K9FHI. Accepted.

Secretary: N9IAI not available to report; WA9ZTY temporary secretary.

Section Manager Report: K9GDF reports everyone is doing their usual nice job on the traffic nets. Thanks for all the volunteers! All the WNA members expressed interest in hearing Rich on the air a little more often.

Section Traffic Manager Report: K9UTQ reports that there are new guidelines for PSHR (Public Service Honor Roll). The new guidelines are outlined in *QST*. Also, one common mistake in monthly reporting is the number of originated traffic. Originated messages are ones which are third party in nature, and you are initially sending them on the air (i.e., a message from a friend or relative).

Section Emergency Coordinator Report: W9NGT reports Weather Service very pleased with the Amateur Radio weather reports every day, also with the severe weather input. Sherm discussed Operation Snowshoe. We need to have a system to collect the information for Snowshoe for times other than the BWN. Sherm suggests that individual stations could send in a single or multiple report via packet. A liaison to the BEN and WSBN would be nice. Sullivan Weather will have a packet station in the near future; all the equipment is on hand, just not yet installed. The packet call will be WISUL/-WB9SMM-6, on 145.61.

Badger Weather Net Report: Jim, WB9YPY, reports still some empty spots in the northeast and south central parts of the state. Typical checkins for the BWN range from 60 to 70, with approximately 50 to 60 checkins from Wisconsin. New weather personnel will be on duty, as Elroy Jagler will be retiring October 1; nobody can remember the new man's name! Again it was stated that the Weather Service is very pleased with our work.

Badger Emergency Net Report: Art, KA9KLZ, has been off the air due to work lately, but reports that we always need more NCS and substitutes, and we always need more 9RN reps. Traffic is moving slow, bands have been very bad at mid-day. No traffic report was available, but Art surmised that the traffic was down due to the poor conditions. KE9VU reports approximately 15 to 20 checkins per day.

Wisconsin Side Band Net Report: Gene, K9UTQ, reports an average checkin count of 20, and average traffic of 5/4. Average net time is 25 minutes. NCS positions are good, as well as the subs; could again use more 9RN reps. It was brought to Gene's attention that many stations are getting impatient waiting for general checkins and are leaving. Most of the folks on hand agreed that general checkins should be asked for earlier in the net.

Wisconsin Novice Net: Net manager not present, report not available.

Wisconsin Slow Speed Net: N9FVN reports approximately 5 to 10 checkins, and 1 to 3 pieces of traffic passed. There should be more checkins this winter, and the net is growing. Could still use some more checkins. WA9ZTY suggested the WSSN be moved from its present 3645, to a frequency within the Novice/Technician band. This would allow more checkins for the net, and it could also double as a higher speed code practice net for those wishing to upgrade to General. Approximately 8 to 13 WPM was suggested. Also suggest we retain the WNN, for the Novices. Most everyone thought that would be a good idea, and the suggestion will be referred to the net manager for his input and/or action.

Wisconsin Intrastate Net/Early: WB9ICH reports that we need more SSB net reps and 9RN reps. He also reports new members N9JIY, N9JNZ, N9KHD, and K0SN. Also nice to hear W9ODV checking in! Average checkins from 5 to 7; average net time ten to fifteen minutes. W9YVC echoes fact that we need 9RN reps, and that more Central Area Net reps would be nice. W9KLN is the only station going to Central Area, and we do not want to burn him out! W9CBE reports that the Illinois Net has moved to 3663; watch out for them, just be aware that they are there.

Wisconsin Intrastate Net/Late: W9NGP extends thanks to W9YCV, W9CBE, K9KSA, and N9BDL for support and NCS. Average QNI 8, QTC 2 - 5. Conditions are getting better.

North Woods Traffic Net: WB9YPY reports Mary is doing a nice job with the net.

Nominating Committee Report - KA9KLZ and WB9YPY:

Nominations are as follows:

Chairman: Don Stenz, K9KSA. Moved by WB9YPY, seconded by W9NGT. Motion carried. K9KSA elected chairman for another term.

Secretary: Bob Towns, N9IAI, wishes to retire as secretary. Rob Hummel, WA9ZTY, filling in as temporary secretary, was made a delegate from the Badger Weather Net, and then was nominated for the secretary's position. Moved by W9NGT, seconded by N9FVN. Motion carried; WA9ZTY elected new WNA secretary. (Next time, I will bring a tape recorder, hi, hi!)

Treasurer: KY9P was re-elected as treasurer.

Report on WB9YPY Scholarship: KA9KLZ reports we need to raise approximately \$6500 to be able to give a \$500.00 a year award. With interest, this would go for approximately 15 to 16 years, depending on interest rates. We need ideas for raising money for this fund. We need to develop a criteria for giving the award.

It was suggested that any class of license would be eligible, and applicants from Wisconsin would be considered first, out of state second.

Art, KA9KLZ, and Dan, W9MFG, would like more help with this project. If anyone has had experience with scholarship awards, their input would be greatly appreciated.

BSSS: K9ZZ would like more input for BSSS, also any article would be welcome. CW net reports have been great, phone net reports have been coming in poor. The space is there for the net managers, so use it if you can!! Send in your reports on MS-DOS with a printed copy for backup, if possible, or just send in the report!! KZ9V requested BSSS run the training articles on traffic nets again. Any articles would be welcome. Club newsletters are welcome; send them to Ken, K9EN. Hi-lite the specific items you would like to see in BSSS.

A round of applause was given to Jim for his outstanding work on BSSS.

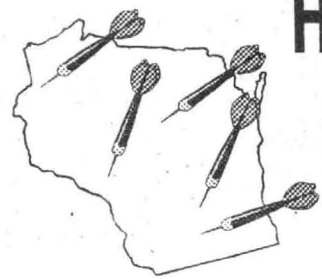
Reviving the top traffic handler award was discussed, as a nice thing to encourage more checkins and more traffic handling. The item was referred to Hale, W9CBE, for development.

Motion made to adjourn by KA9KLZ, second by N9FVN. Meeting adjourned.

Door Prizes and Winners

Bag of bird seed	W9NGT
Deer pencil holder	N9GOV
Precision screwdrivers	K9UTQ
Visor organizer	Vince (friend K9ZZ)

Please turn to page 7



HERE and THERE

FCC Employee Assassinated

A New York City FCC employee was shot and killed on Wednesday, November 27th, by a gun-toting assassin. Catherine Foster was leaving the Commission's Varick Street office complex when she was accosted by a woman identified as Jeanette Demarest. Police charge that Demarest shot Foster twice with a .22 calibre automatic handgun. Demarest, of Greeley, Colorado, told police that she did not know Foster personally, but shot her simply because she worked for the regulatory agency. Demarest said that she believed radio waves were intruding into her life.

Police said they found Demarest standing nearby the murder scene when they arrived and the murder weapon was found in her purse. She claimed that the FCC had been conducting "illegal surveillance" of her for some time, and that she had filed a law suit against the FCC charging harassment.

But FCC spokeswoman Lorrie Secrest said that the New York FCC office had encountered Demarest before. "Our people said she visited the New York office several years ago, saying something about radio waves interfering with her," she said.

Police have charged Demarest with murder, criminal possession of a weapon, and criminal use of a weapon.

- Westlink Report, 12/13/91

Only a Dozen Watts

Jim, KA9QLP, of Cedarburg, still marvels over his Midland 13-895 that he converted from the CB band to 10-meter amateur use. The unit runs only 12 watts PEP SSB, but he has worked all states and continents and 110 countries in a little over three years of casual operating. A couple of good contacts were made with Saudi Arabia and Oman.

You might think that Jim uses the latest in towers and beams - nope. He has a dipole between a tree and the chimney of his house about 30 feet above the ground.

- Rich Regent, K9GDF

FCC Extends ARRL HF Digital STA

The American Radio Relay League Special Temporary Authority (STA) for unattended HF digital operation by a limited number of specified amateur stations has been extended to January 3, 1993. On December 20, the FCC Private Radio Bureau granted what it termed a final extension of the STA.

A survey in January 1992 QST and in other

1992 QSO Party Sunday, March 1

The 1992 Wisconsin QSO Party will be held Sunday, March 1, 1992. The party is sponsored annually by the West Allis Radio Amateur Club. Rules, a multiplier list, and a score summary form will be published in the February, 1992 (next) issue of *Badger State Smoke Signals*, or may be requested, with an SASE, from the West Allis Radio Amateur Club, P.O. Box 1072, Milwaukee, WI 53201.

- Thanks Dave Knaus, WA9POV

publications seeks information for use in developing a proposal for permanent rules regarding such operation. Unattended operation in the HF bands is *not* permitted, except under the terms of the STA.

- ARRL Bulletin 55, 12/20/91

Lithuania Seeks IARU Membership

With the application of the Lithuanian Amateur Radio Society, LRMD, Lithuania has become the first of the newly independent Baltic countries to seek International Amateur Radio Union (IARU) membership. Voting is now underway, and will be concluded in May, 1992.

LRMD advises that its national QSL bureau is functioning. Cards for LY stations should be sent to P.O. Box 1000, Vilnius 1, Lithuania, rather than the old Box 88, Moscow, address.

IARU membership applications from other Baltic countries are expected soon.

- ARRL Bulletin 56, 12/20/91

Green Bay Officers

New officers of the Green Bay Mike and Key Club for 1992 are: President, KE9AS; Vice-President, N9LSX; Secretary, KB9AMM; and Treasurer, KA9VRK.

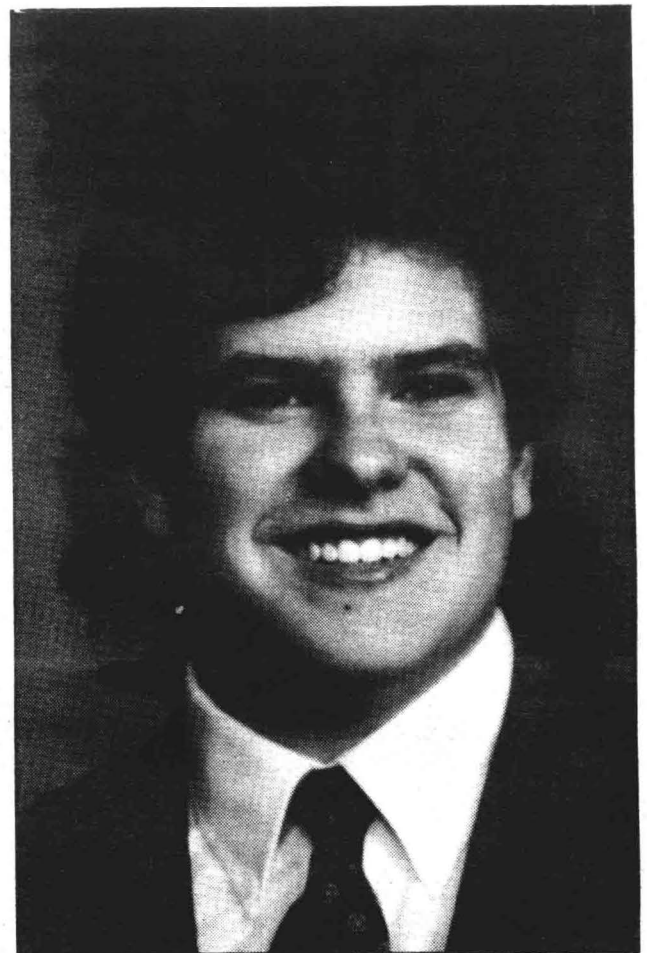
- Rich Regent, K9GDF

Solar Cycle on Slippery Slide

Certainly, we have passed the peak of the current solar cycle. But where is the cycle headed now? A look at the averages for 1991 shows it holding fairly steady above 200. Recent forecasts show the solar flux heading down over the next year, with average flux about 40 points lower in December 1992, and another 40 points below that at the end of 1993. The solar flux could bottom out by the end of 1996. Wondering when flux levels will climb back to where they are now? Wait until after the turn of the century.

The Northern Hemisphere is experiencing the shortest days of the year, so the higher frequencies are shutting down earlier as the Sun makes a briefer appearance. Short term solar flux should peak around January 8 at a level near 240.

American sunspot numbers for December 13 through 19 were 248, 250, 238, 196, 175, 199 and 189, with a mean of 213.6. Solar flux reported by



Bob Goemans, N9HAD, Madison, son of Paul, WA9PWP, pictured here, was one of the three winners of the 1991 West Allis Radio Amateur Club's Memorial Scholarships. The club awards scholarships annually, with administration of the awards performed by the Foundation for Amateur Radio. FAR administers a large number of scholarships, and the announcement of the awards available in 1992 will be published in March or April *Badger State Smoke Signals*. In addition to funding the Memorial Scholarships, WARAC also sponsors the Mid-Winter Swapfest each January in Waukesha, and the Wisconsin QSO Party each March.

- Photo courtesy Paul Goemans/WA9PWP

FCC-ISSUED CALL SIGN UPDATE

The following is a list of the FCC's most recently issued call signs, as of the first of December, 1991.

District	Group A Extra	Group B Adv	Group C Tech/Gen	Group D Novice
0	AA0GK	KF0VT	N0QEA	KB0JRY
1	WY1W	KD1FO	N1KPS	KA1ZLR
2	AA2HK	KF2FG	N2ORL	KB2NVP
3	WT3M	KE3AD	N3LAC	KA3ZNR
4	AC4LT	KO4NG	**	KD4HJB
5	AB5DA	KI5VS	N5XOD	KB5QPV
6	AB6HN	KM6MT	**	KD6DJV
7	AA7LP	KG7WQ	N7VBP	KB7OHN
8	AA8FM	KF8QR	N8RCI	KB8NFV
9	AA9CJ	KF9GW	N9NHW	KB9HJD
Hawaii	**	AH6LQ	WH6DM	WH6COS
Alaska	**	AL7NT	WL7AL	WL7CDF
Puerto Rico	**	KP4TC	**	WP4KTA

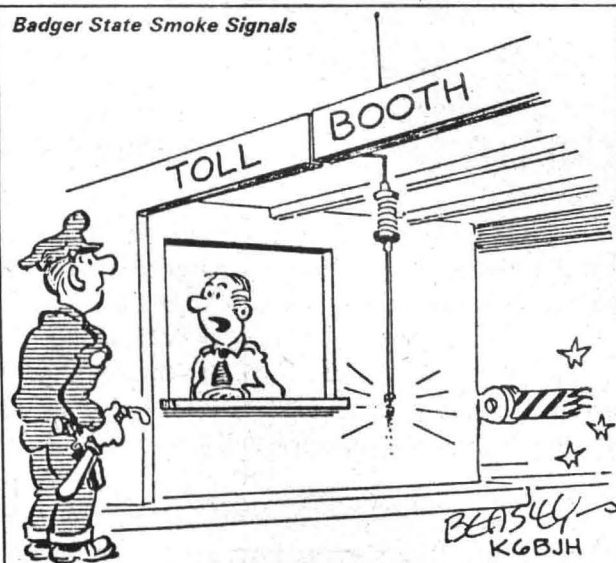
** All call signs in this group have been issued in this area.

- The ARRL Letter, December 19, 1991

WWV for the same period was 254, 229, 213, 233, 198, 195, and 188, with a mean of 215.7.

- Excerpted from ARRL Bulletin 50, 12/21/91, by Tad Cook, KT7H, Seattle, Washington

Badger State Smoke Signals



DESCRIPTION? GEE, I DON'T KNOW-- JUST LOOK FOR A CAR WITH NUTHIN' LEFT ON ITS REAR BUMPER BUT A SPRING MOUNT

Badger State Smoke Signals

Subscription Form • Regular Individual Subscription Rates

1 year: \$9.75 • 2 years: \$18.00 (save \$1.50) • 3 years: \$26.00 (save \$3.25)

PLEASE PRINT!

Name: _____ Call Sign (if any): _____

Address: _____ City: _____ State: _____ ZIP: _____

☐ 1 year ☐ 2 years ☐ 3 years ☐ New ☐ Renewal

Send this form, with your check or money order, to Jim Decker, WB9UQT, Treasurer, P.O. Box 337, Baraboo, WI 53913. **Please do not send cash!**

9201

Dunn County Disaster Drill

Colfax is a quiet rural community of 1,000, located in west-central Wisconsin between Menomonie and Eau Claire. However, Saturday, October 19 was anything but quiet in Colfax. A mock disaster drill was staged by the Dunn County Emergency Government office. The purposes of the drill were to evaluate communications systems, to evaluate the response capacity of the participants, and to provide an overall assessment.

At approximately 8:15 a.m., a gasoline tank truck at the Farmers Union Co-op bulk facility caught on fire. A troop of Boy Scouts touring the facility was trapped in the main building, many with burns. The responding emergency personnel not only have to contend with the fire and the many burn victims, but also with a leaking anhydrous ammonia tank - all simulated, of course.

One hundred thirty eight participants from 38 law enforcement agencies, fire departments, and medical services were involved in the drill and debriefing that followed. Also participating was the Life Link III medical evacuation helicopter from Minneapolis-St. Paul. Area Boy Scouts from Menomonie and Colfax served as "victims".

Northern Wisconsin Radio Club members provided communications for the Dunn County Red Cross during the exercise. The N9HNI (146.805) and the WB9YMB (146.61) repeaters were checked for reliable communication to Red Cross Headquarters in Menomonie. However, since Red Cross personnel were at the scene to help with the evaluation and debriefing, simplex was used for the drill.

For the amateurs involved, the exercise provided a great opportunity to work on other than normal Amateur Radio activities. According to Tom Johnson (N9KMZ), the director of Dunn County Emergency Government, the plan to utilize Amateur Radio operators in a disaster "has always been on paper, but never exercised." He went on to say that Amateur Radio is an important resource



Emergency personnel prepare a "victim" for transport at the disaster drill in Colfax, Wisconsin.

because "in emergency communications, redundancy is the norm rather than the exception."

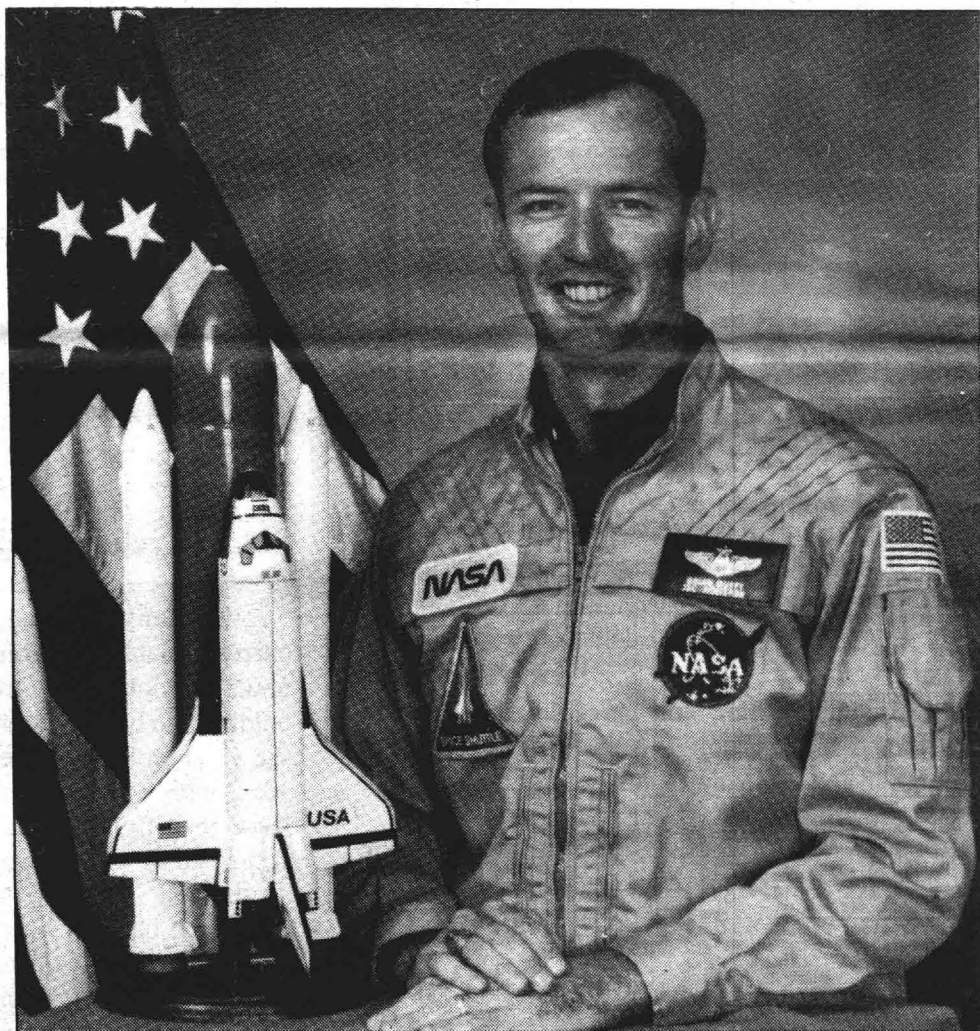
Area amateurs who would like to take part in future future drills are encouraged to contact Tom Johnson (N9KMZ) or area Emergency Coordinator Jim Ley (NX9F).

Ken Dicks, KE9CS, and Fred Boetcher, WU9R

Meet the United States' Newest AstroHams



These NASA Shuttle astronauts have passed their Technician/Morse Amateur Radio examinations, and are waiting for their call signs from the FCC. David Leestma, left, and Brian Duffy, are scheduled to fly STS-45, planned for launch in March of this year. SAREX organizers have asked the FCC for waivers so the astronauts can operate from space; FCC rules allow space operation only by



Extra Class amateurs. STS-45 will fly a high-inclination orbit, and so will be more accessible to amateurs outside the tropics. More information will be available as the launch date approaches.

- Excerpted from the ARRL Letter

Photos courtesy National Aeronautics and Space Administration

MIR Popping Up All Over!

Responses to my earlier bulletin show that the MIR cosmonauts have discovered the frequency knobs on their radios and have been using them more than we had realized.

U4MIR and/or U5MIR have been worked recently using FM voice on a variety of frequencies between 145.5 and 146.0 MHz. In addition, however, they have been known to "surprise" people by calling into FM simplex nets and even repeaters in the 145 MHz repeater sub-band.

So, set your FM receiver to scan during predicted MIR passes; you'll never know where Aleksandr and Sergej will show up!

However, those with FM-only radios are cautioned that the 145.8-146.0 Oscar sub-band contains uplink and downlink frequencies of many

Amateur Radio satellites. Because of the often very weak signal levels involved, as well as the SSB and CW emissions employed, your FM receiver may not even be aware that these operations are present. Please exercise caution to be sure that your transmissions are not causing QRM to Oscar satellite uplinks or to SSB/CW satellite users in your area; when in doubt, please avoid transmitting FM to MIR in this part of the band.

And, on whatever frequency, please do not call U4MIR/U5MIR unless you are actually hearing them, to avoid causing QRM to other terrestrial operations.

As for packet, so far as we know, this has been heard thus far only on 145.55 and 145.50 MHz. (Editor's note: Read the following story.)

QSL all MIR operations to Boris Stepanov,

UW3AX, at Box 679, Moscow 107207, USSR.

73, Ray, KD1R, via WD9ESU packet BBS

U4MIR on 145.900 MHz

KB2E and N2KPC reported, via the Tri-State DX PacketCluster System, having worked U4MIR today (4 December) on 145.900 MHz FM voice.

This is the first I've heard of MIR using this frequency or any in the 145.800-146.000 international satellite sub-band. MIR might pop up anywhere in the two-meter band. Be alert!

73, Ray, W2RS, via WD9ESU packet BBS

Advertising in Badger State Smoke Signals is inexpensive! For information, contact K9EN. See page 2 for his address.

From the Editor

Who Stretched My Copy of BSSS?

If your issue of *Badger State Smoke Signals* seems to be a bit taller this month, you're right.

We began having problems about a year ago with the printing plant we had been using for the past five years, and those problems were getting worse. The most obvious and most frequent was extreme carelessness with the amount of ink applied. Usually, the problem was underinking, and somehow it always seemed to happen on pages on which there were pictures. After about a year of ongoing protests, which resulted in no improvement, we had no choice but to change to a new printer.

The new printer (Wisconsin Web in Merimac, Wisconsin) uses different size paper. It is now about 16 inches in copy height; it had been about 12.5 inches with the former printer. We have dropped to 16 pages, but, with the added height, we have room for slightly more copy than we did with the 12.5 inch height, 20-page newspaper. And, we think you will find a much better quality *Badger State Smoke Signals* in your mailbox every month.

Glagging

In last month's "Here and There," we quoted ARRL Vice-President Dave Sumner, K1ZZ, in the *ARRL Letter* as saying he didn't think interest in the no-code Tech license was "glagging." Of course, it should have read "flagging." Our apologies to Dave for our typo. There were probably others in that issue, too. It was typed by your editor as he went through a three-week bout with the flu. Having a fever helps concentration not a bit. It is something up with which I would rather not have put. □

Wisconsin Nets Association

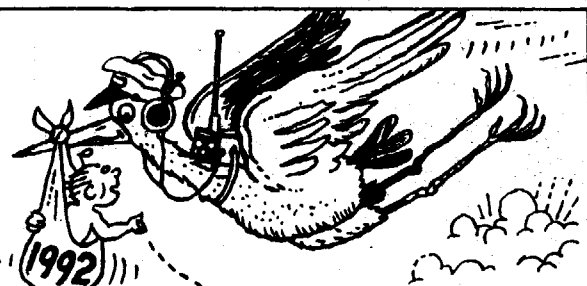
Continued from page 4

Coin saver	WB9ICH
Bug lites	W9WSS
Deer tape dispenser	W9YCV
X-Acto knife	W9CBE
Paper plate holders	K9GDF
New Webster's Dictionary	WB9YPY
Note paper	N9FVN
7-piece nut driver set	K9KSA
Key holder	KE9VU
Deer pencil holder	KA9EVZ
Soda lids	KA9BAE
Screwdriver set	Char K9FHI/KA9BAC friend
Note pad	KA9HKL
Mittens	W9NGT
Public Service Manual	N9JAE
Public Service Manual	XYL KA9KLZ
Kleenex	KZ9V
<i>Badger State Smoke Signals</i> one-year subscription or extension	WB9JSW!!

73 to all,
Rob, WA9ZTY, Secretary

The minutes of the WNA meeting on the air, held December 7, 1991, will be published in the February, 1992, issue of BSSS. □

ARRL SIXTY - NEW YEARS DAY



"I SAY CAPT, CAN YOU PLEASE
DROP ME OFF ON A HILL TOP QTH
WITH NO LOCAL GRM, AND
NO GRABBERS OF OUR FREQUENCIES!"

Badger State Smoke Signals

W90DV

New Products

AEA-FAX Grey Scale FAX Demodulator

AEA brings you the latest breakthrough in weather fax reception with AEA-FAX. Designed to work alone or to compliment the black and white fax reception in the PK-232MBX, AEA-FAX provides a high-quality, high-value, easy-to-use system for anyone interested in the weather.

- 16 Grey Levels. With a VGA monitor, AEA-FAX can receive and display up to 16 shades of grey, providing excellent detail on satellite photos. EGA monitor displays false color separations. CGA, Hercules also supported.

- Daisy-Chain RS-232 Input. Your external Hayes-compatible RS-232 device (PK-232MBX, PK-88, telephone modem) can share a COM port with AEA-FAX.

- On-Screen Tuning Display. Oscilloscope-like display aids in tuning in a FAX signal; visible on screen even when receiving an image!

- Slide Show Mode. Run two or more images in succession to show cloud movement. Great for tracking storms and hurricanes.

Other features include Autolist for unattended reception and disk capture, unlimited zoom, user-definable grey levels (EGA colors) and more. Available now.

- AEA news release

AEA IsoLoop Model 10-30 Compact HF Antenna

Following up on the success of the IsoLoop 14-30, the IsoLoop model 10-30 sets the standard of performance for compact HF antennas. This antenna is particularly well suited for DX operation in locations that have antenna restrictions.

The omni-directional IsoLoop is ideal for people living in apartments and condos, and it's also great for mobile or portable use. Power capability: 150 watts.

The IsoLoop can actually exhibit gain over a dipole at takeoff angles between 5 and 15 degrees and below half-wave above the ground.

- Easy to Install. Tighten two nuts and the IsoLoop is mounted to your TV mast. Connect the coax cable from the transmitter to the antenna, connect the control cable to the LC-2. No ground radials, antenna tuners, rotators, construction permits or heavy labor needed.

- Compact. Measuring only 43 inches in diameter, the IsoLoop is the ideal "go-anywhere" antenna. Use it in an attic, on a boat, on an RV, for Field Day, in a hotel room.... the possibilities are endless!

- Breakthrough Design. The feedline is properly decoupled from the antenna without need for groundplane radials. This means computer noise picked up on the outside shield of the feedline does not spill over to the inside surface, covering up otherwise readable signals in your receiver.

- High Q - Narrow Bandwidth. Attenuates out-of-band signals and harmonics. Keeps television interference to a minimum. IsoLoop can be mounted vertically to null out a local interfering signal.

- All Welded Construction. No mechanical joints means maximum efficiency, even after years of exposure to weather elements.

- Continuous Tuning. Covers all frequencies from 10 to 30 MHz. Tuning is accomplished with the included LC-2 Loop Coupler. An optional frequency indicator is available for easy tuning. No external hard-to-use antenna tuner is necessary.

- AEA news release

AEA PCB-88 Packet Controller Board

AEA's expertise in designing and producing advanced packet controllers continues to grow with the PCB-88. A plug-in expansion card for IBM PCs and compatibles, the PCB-88 has all the features of the famous PK-88.

- Packet. Connect, disconnect, digipeat, access packet bulletin boards and DX spotting nets,

use nodes, and transfer binary files.

- Personal Mailbox. Send and receive messages, bulletins, and information with other hams in your area. Set up with local PBBS to automatically forward your messages.

- Packet Lite. Exclusive AEA enhancement to the AX.25 protocol. Increases HF throughput by up to 40%.

The PCB-88 includes AEA's PC-Pakratt-88 control software program for ease of use. The PCB-88 can be powered externally so the computer can be turned off while leaving the controller on (for receiving mailbox messages). Available now.

- AEA news release

AEA VSB-70 Fast-Scan TV Transceiver

AEA continues to be the leader in amateur television technology with the introduction of the VSB-70. The VSB-70 joins the RLA-70 amplifier and the 430-16 antenna to form the ultimate 420-440 MHz ATV station.

- Vestigial Sideband. The same method used by commercial TV stations, VSB concentrates almost all of the power into one sideband, reducing bandwidth and conserving spectrum space.

- VFO or crystal Controlled Receive Tuning. Use the crystal-controlled receive for a set frequency, or use the VFO for other frequencies or drifting transmitters.

- Display on Standard TV. Hook up the VSB-70 to your television, and display both received images and your monitored signals on the screen.

- Versatile Hook-Up. Common 10-pin camera connector or Video and Audio RCA inputs to allow hookup to virtually any camera, camcorder, or VCR.

The VSB-70 also features 1-watt P.E.P. output, separate microphone and PTT inputs with high-quality construction. Available now.

- AEA news release

PC-Pakratt-88 Packet Control Software

In the tradition of the famous COM-Pakratt and PC-Pakratt programs, PC-Pakratt-88 is now available. PK-88 and PCB-88 users can now enjoy the same luxuries enjoyed for years by owners of PK-232s.

- Menu Driven. The visual user interface means there are no complicated operating sequences to memorize. Mouse compatibility makes operation even easier.

- Split-Screen. When operating in Packet, the transmitted and received information are routed into their own respective windows for maximum efficiency.

- Parameter Screens. No need to memorize complicated commands. Point and click or type to change parameters. Help is just a click away.

- Comprehensive Help. Unbeatable help file makes complicated operations easy. Help screens are context sensitive so you get only the information you want. Help is available on commands, menus, program operations, and general topics.

- Binary File Transfer and File Editor Included. Send program and other binary files efficiently with PC-Pakratt-88's built-in file transfer program. Edit messages and write brag files with the included PK-EDIT program. Or, specify your own external file transfer and word processing programs. Available now.

- AEA news release



Johnsen Computer Systems

• Sales • Rentals • Service
• Leasing • 100% IBM Compatible

(608) 356-5515

Bill Johnsen
President

402 Broadway
Baraboo, WI 53913

Second Balloon-Carried Amateur Radio Balloon Flight is Successful

The December 7 flight of the high altitude Amateur Radio balloon flight from Hillsboro, Wisconsin is now history - and a success! Those of you who watched the high resolution video, worked thru the 2 meter/440 repeater or listened to the digital voice beacon on 10 meters - congratulations!

Here is a quick rundown of the event:

At 7:00 a.m. local time (1300Z), the launch crew made their way out to the launch area to inflate the balloon and double-check all equipment. FAA flight service reported that the jet stream was directly over the middle of the state. Winds aloft above 24,000 feet were in excess of 90 MPH, with peak winds at 56,000 feet of 110 MPH. The projected flight path indicated the possibility of losing the package in Lake Michigan if the scheduled TA-1000 balloon were used. With approximately \$1000 worth of gear at stake, the launch crew decided to use a smaller TA-300 balloon, effectively reducing the flight time and any danger of the equipment landing in the lake. Due to this decision, the flight was delayed 45 minutes while the smaller balloon was prepared.

At 9:00 a.m., the 40 meter net was established and check-ins were updated on the change in plans. At 9:46 am, the balloon was sent aloft and within 10 minutes reports were received from Iowa of clear video. Shortly into the flight, a problem with the video required that a reset signal be sent to the package. The reset was successful, and stations from around the Mid-West were heard describing the video over the 2 meter/440 repeater. One station reported seeing video on his monitor in Arkansas! Ground control worked stations at a frantic rate until a "glitch" with the command frequency prevented them from acknowledging about 40 minutes into the flight.

At approximately 10:30 a.m., the report came over the uplink frequency that the balloon had burst and the package was in a controlled descent by parachute. As the burst occurred somewhat sooner than expected, "chase"/recovery crews were out of position, too far down-range. The recovery crews packed up their equipment and hurried in the direction of their last bearing as other stations reported ground characteristics as seen from the descending package.

The descent seemed longer than anticipated, approximately 15 minutes before all stations had lost video from the package. With the package confirmed on the ground, recovery crews and home-based amateurs triangulated their last beam headings and established a search area between Portage, Merrimac and Columbus, Wisconsin.

The last video from the on-board camera showed a bend in a river, with an island in the middle of the bend. A quick look at detailed area maps indicated two possible locations, in the southern area of the search area on Lake Wisconsin, and 5 miles south of Portage. A recovery crew beam heading indicated that the Portage site was the view seen by the camera, and all recovery crews closed in on the area.

The "hunter blaze" orange paint scheme of the package, silver mylar radar reflector, and deep red parachute in the bright sunshine of the black-wooded, snow-covered central Wisconsin landscape virtually advertised its presence in a wooded stand of 35 -40 foot oak trees on a hill next to Highway 16, just outside the northern city limits of Rio, Wisconsin. (Whew! My English prof would have flunked me for a sentence like that! HI!) The chase crews collected in the field next to the downed gear, and debated how to recover it from these 4 - 5" diameter trees. While waiting for the crew with the cameras to arrive at the scene, another chase crew arrived from a different direction, looked at the package, and one of the fellows shinnied up the 35+ feet of the oak holding the package, cut the system tether line at the package, and brought the package down. No climbing belt, no boot cleats, and no net! (And no more life insurance if his insurance agent finds out!)

To bring this to a conclusion, the cameras showed up and the moment was immortalized on Kodachrome. The radar reflector, parachute and balloon debris temporarily remain in the trees (a local ham will further attempt to recover these with the assistance of a bow and arrow). The radio gear was delivered to the launch crew and, following a round of thanks to the landowners (one is Rio's chief of police) for allowing access to their property, the rest of the recovery crews made their ways home.

Now, some useable info:

The launch crew was able to tape about 45 minutes of the launch and flight of the balloon as seen from the on-board camera. If you would like a copy of the video, send a blank VHS tape to Tim, K9SB, with adequate return postage. For those who videotaped portions of the flight, Tim would like to copy your video, and add the video received from others, as well as the launch crew video after your footage, in order that everyone can see as much of this event as possible. Please send your VHS tape, with adequate return postage and cued to the start of your video segment of the flight, and a note attached estimating the time length of that video, to Tim.

For those of you that worked thru the balloon, but, were not acknowledged - you are in luck, you get credit for the contact if it was recorded by the ground



A balloon-carried package comes down where it comes down, and it's not always in the best location. The end of the flight on December 7 was in these trees, about 30 feet above ground, near Rio, Wisconsin. One of the brave souls in the photo below shinnied up and recovered the package. Just thinking about the splinter potential is scary!



This is the recovery team which converged on the area where the package floated gently to earth beneath its parachute. From left, in front are Steve Loeffler, WB9ZRE, of Ripon, and Brent Hughes (no call), who climbed the tree to recover the package. From left, in back are James Paul, N9LKY, Merrimac; James Kalrath, N9KAN, Madison; David Conway, KE9KX, Poynette; Lennart Buchda, KB9GDY, Randolph; and Tim Tomljanovich, K9SB, Schaumburg, Illinois.

BSSS staff photos by Ken Ebner/K9EN

crew. Send an S.A.S.E. to Joe, WB9SBD, and allow extra time for him to process them (he still has some cards from the first flight to get out yet!).

One final bit of info:

The inside word has it that the next flight will be this Spring (March-April), and that "Packet" has been mentioned more than once!

Thanks to all the Amateurs and friends who took an active part in putting this mission together.

Thanks to all who worked or attempted to work the balloon. Your enthusiasm keeps these projects fun and exciting!

- Steve Loeffler, WB9ZRE, via packet BBS WD9ESU

BSSS editor's notes: Our front page photo shows the recovery crew examining the package.

While this issue was being prepared, it was understood that a second launch in December - possibly the 27th - was being considered. If the launch was made, it was too soon for us to tell our readers. If this was the case, we apologize.

Our readers are encouraged to convey their suggestions and ideas to Joe, WB9SBD, either by mail at Route 1, Box 235A, Hillsboro, WI, or via packet radio to WB9TFJ @ WD9ESU; L.J. will pass your information to Joe. □

TigerTail

Range Extender for 2 meter Handhelds

- Boosts Signal from Flex & 1/4 wave Antennas
- Lowers Radiation Angle
- Improves both Receive and Transmit
- Raises Low Power Performance
- Saves your Battery Pack

• Easy to Use
• Unobtrusive
• Easily Concealed
• Snaps on Handheld
• Weighs only 1/3 oz.
• Adds No Bulk or Weight

AntennasWest
Box 50062-SS, Provo, UT 84605

Order Hotline: 800-926-7373

See and Hear the Difference 7.95

Thanks, Joe!!

Many thanks to Joe Mayenschein, WB9SBD, Hillsboro, and his hale and hearty crew, for giving Wisconsin area hams something new and extremely interesting with their Balloon-Carried Amateur Radio experiment packages! To Joe and crew: WELL DONE! And, the recovery crew thanks, in addition to Rio's chief of police, Ralph Hemling, both property owners who allowed the crew access to their land to fetch the Dec. 7 package! - BSSS Staff

TNT

Today's No-Tune Window
complete, assembled, ready to use

TNT is the modern coax-fed version of the classic multiband. TNT is No-Tune on 80 cw, 40, 20, 17, 12, 10. TNT2 is No-Tune on 40, 20, 10. Work other bands w/ tuner. DX & Gain rise w/ frequency. Ready to Use Now! Includes Custom Isolation Balun and 99 ft. RG-8x feedline. Tech Support 801-373-6425 for info send \$1

AntennasWest
Box 50062-SS, Provo, UT 84605

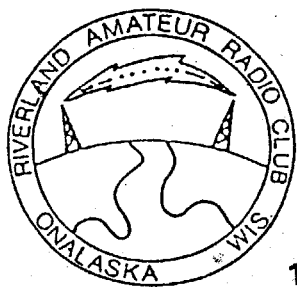
TNT \$89.95 - \$60
135 ft. long P&H

TNT2 \$79.95 - \$67
67 ft. long P&H

Order Hotline: 800-926-7373

What's the TNT secret? Feed a harmonically resonant antenna off center at a constant impedance point. Tame it with a feedline isolation balun. Result? DX, broad low SWRs, and multi-band No-Tune operating.

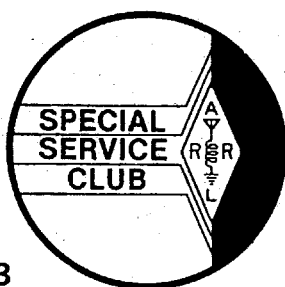
Custom JKW TNTs add \$70



Riverland Amateur Radio Club

Dick Low, K0JYB, Secretary

1520 Nakomis Avenue • La Crosse, WI 54603



Meeting Minutes December 3, 1991

The December meeting of the Riverland Amateur Radio Club was called to order by President Walt Altus, AA9AW, at 7:45 p.m.

The minutes of the November meeting were not read as the Secretary was not able to attend the meeting. We were reminded however that the meeting time has been changed to 7 p.m.

The Treasurer's report was given by Arby Boomer, W9FT, and was approved as read.

Feroz Ghouse, WU9N, made a motion to accept the October 1991 Minutes as published in the *Badger State Smoke Signals*. The motion was seconded and carried.

President Walt, AA9AW, commented on the success of the Planetarium show at the UW, which was held in lieu of the November meeting. All comments were favorable.

A discussion was held regarding a motion made by Joe, WA9SOQ, at the Nov. meeting regarding

changing the meeting time to 7 PM. The motion had been seconded by Rick Williams, KV9U. The motion was carried.

Feroz announced that gifts are on the side table for those people who participated in the Holiday gift drawing.

President Walt announced that the annual RARC Dinner will be held at Christophers in the Valley View Mall (Entrance No. 3). Cocktail hour starts at 6:30 p.m., and dinners will be selected from a Menu.

Dues for 1992. A motion was made by Duane, W9HWQ, that the 1992 dues remain at fifteen dollars, seconded by Van, WA9FIO. Motion carried.

Feroz suggested a round of applause for President Walt and Treasurer Arby for a job well done in 1991.

Election Results for the upcoming year of 1992:

President	Walt Altus, AA9AW
Vice President	Feroz Ghouse, WU9N

Secretary	Dick Low, K0JYB
Treasurer	Duane Freuchte, W9HWQ

Every one introduced themselves, including members and visitors.

Meeting adjourned at 9 PM.

Meeting Attendance

Dick Low	K0JYB
Walt Altus	AA9AW
Arby Boomer	W9FT
Art Osborn	W0JDC
Dean Summers	KQ0C
Dallas Miller	K9LEC
L. F. Bentzen	K9EGO
Feroz Ghouse	WU9N
Ray Wakeen	WA9HHM
Van Elston	WA9FIO
Rick Williams	KV9U
Judy Williams	N9LGV
Tom Gromacki	N9KIA
Phil Strong	N0OWU
Greg Miller	KA9FOZ
Scott Neader	KA9FOX
Ken Eggen	WA0RBU
Bob Wilson	N9LZK
Joe Mezera	WA9SOQ
Phil Uehling	W9UP
Kent Helman	W9LZQ
Richard Uhl(sp)	
Clarence Crum	
Larry Kapp	WT9M
Duane Frechte	W9HWQ

Yellow Thunder Amateur Radio Club

Duane Grotophorst, KA9HKL, Secretary

K9ODK
WB9FDZ

E5767 South Line Road • Loganville, WI 53943



Meeting Minutes December 12, 1991

The meeting was called to order by President Art Kleefisch, W9WSS, at 7:34 p.m. The following members and guests were present:

Duane Grotophorst, KA9HKL	Loganville
Raymond Matlosz, N9MLZ	Reedsburg
L.J. Hemmer, WB9TFJ	Baraboo
Sandra Hemmer, KA9VFW	Baraboo
Rohbert Hemmer, N9LKX	Baraboo
Jack Kirner, N9LKZ	Prairie du Sac
Robert Sauvan, WT9Q	Sauk City
Bill Klinkner, N9KXX	Sauk City
Harry Westlund, K9EHJ	Baraboo
Kevin Perry, N9LME	Sauk City
Jim Decker, WB9UQT	Baraboo
Harry Mayland, K9FFT	Baraboo
Marvin Kaiser	Wisconsin Dells
Ken Ebner, K9EN	Portage
Art Kleefisch, W9WSS	Baraboo

The minutes of last month's meeting were

approved as published in BSSS. The current treasury balance is \$153.33, as reported by Jim, WB9-UQT.

A motion was made and seconded to set the 1992 dues at \$15 per year for members, associate members, and senior members. Discussion followed about the merits of a single price dues structure. The motion was put to a vote and was passed.

An additional motion was made and seconded to set the dues for a family of club members living in the same household to be the same as a single member, and that only one copy of minutes and announcements be sent to this household. Discussion followed. The motion was put to a vote, and was passed.

Art, W9WSS, gave a report on the constitution rewrite committee's effort to simplify the document and to bring it into alignment with today's world. Art then read the highlights of the committee's proposed rewritten by-laws.

A motion was then made and seconded that at the January 14, 1992 meeting, a motion be made and voted on to amend the constitution and by-laws

by replacing it with the revised and rewritten by-laws. All members will get a copy of the proposed by-laws before the January 14 meeting. This motion was put to a vote, and was passed.

Nominations for club officers was reopened, with only the addition of Harry, K9EHJ, for the office of secretary being added to the previous roster of nominees. The election was held, with the following members being elected:

President:	Art, W9WSS
Vice-President:	Bill, N9KXX
Secretary:	Harry, K9EHJ
Treasurer:	Jim, WB9UQT

L.J., WB9TFJ, gave an overall report and details of the preparations for the successful December 7th Hillsboro balloon launch and flight, with myself describing the launch site activities.

Three area hams were voted in as new members. They are:

L.J. Hemmer, WB9TFJ
Sandra Hemmer, KA9VFW
Rohbert Hemmer, N9LKX

The club welcomes these three new members.

Buck Nite winner Marvin Kaiser, who was present and is now two bucks richer.

Meeting was adjourned at 8:32 p.m., and many of the meeting attendees retiring to the Country Kitchen for coffee.

Duane Grotophorst, Secretary

Eau Claire Amateur Radio Club

Carl Searing, W9NW, Secretary

1129 McKinley Road • Eau Claire, WI 54703-2219

Meeting Minutes December 10, 1991

The club's annual Christmas party was held at the American Legion Hall on Water Street on the tenth of December.

Although this date is the club's normal meeting

date, the party took precedence and a good time was had by all. Our Christmas gathering is traditionally a pot-luck meal, with sliced ham (appropriate for a Ham Radio Club) furnished by the club. 42+ people attended. Every family or individual member supplied a dish, and we enjoyed a most varied meal.

A very brief meeting was held in order to

ascertain the results of the recent balloting for the new slate of club officers. KB9R (who, with KC9-NN, tabulated the ballots) read the results:

President:	Bill Jablonske, W9NNS
Vice-President:	Craig Barnes, N9NCW
Secretary:	Don Franzmann, W9NFI
Treasurer:	Sue Eide, KB9EUP

Particular thanks to the nominating committee of N9ISN, N9LIJ, and N9NCW for an outstanding job. Over 80% of the ballots sent out were returned.

Lunch Committee: N9NCW, WD9IJV.

Respectfully submitted:
W9NW, Secretary

Racine Megacycle Club

Arne Moxness, KA9ZPY, Secretary

3345 Newman Road • Racine, WI 53406

Meeting Minutes December 9, 1991

Some 30 hams and guests visited the Wustum Museum and saw their new art additions before the last business meeting of the year. The volunteer guides took us through the exhibition and explained the various artists' works, some up to \$25,000. After the show coffee and kringle waited in the meeting room, thanks to Bill, W9OVZ. No kringle left.

The business meeting was started at 8:30 p.m. by Vice President Brian, WD9FRH, since President Dave, WB9USI, was out of town. The Minutes, as reported in the *Badger State Smoke Signals*, were approved with minor corrections. Dave, WB9ZIO, gave the treasurer's report. The current balance is \$438.50.

Dan, KA9OIL, then conducted the election of officers for 1992. Elected officers are:

President: former Vice President Brian, WD9FRH
Vice President: Cheryl, WS9P

Treasurer: Dave, WB9ZIO, reelected (no opposition)

Secretary: Arne, KA9ZPY, reelected (no opposition either!);

Program chairman: To be chosen.

Old Business

Bruce, K9RRS, reported about the Packet Users Group, which meeting was cancelled due to the record snow fall. He said there are hand outs available to those interested about packet.

Dan, KA9OIL, reported about the last Fox Hunt. The leaders are Gene, WB9ZKY, with wife WB9ZKX. Second position, Dave, KC9NG, and Bill, WU9P. Third position, the handsome threesome: Dan, KA9OIL, Gary, N9MJH, and Peter, N9KGG. The Fox Hunts normally start at 7:00 p.m. at JC Penneys at Regency Mall. Contact Dan, KA9OIL, for more details.

Dan, KA9OIL, and Jim, W9LXY, both reported on the upcoming Ham Dinner, which will take place on February 8, NOT February 1 as mentioned earlier. Other committee members are Cheryl, WS9P, and Gary, N9MJF. Cut off date for reservations will be January 15. Mailings, with reservation and cost for this event, are being worked on. There will a limit to number of Hams with guests since the Racine Yacht Club has a limit.

Oscar, WB9FJI, was reported as a silent key. Cheryl, WS9P, who was absent, has lost her father.

The meeting was closed at 8:45 p.m.

Calendar

Courtesy of Racine Megacycle Club

Jan	11	Hamfest at Waukesha
Jan	13	Megacycle Club meeting
Jan	26	Hamfest at the Odeum
Feb	8*	Ham Dinner at Racine
Feb	10	Megacycle Club meeting
Mar	9	Megacycle Club meeting
Mar	22	Hamfest at Jefferson
Apr	5	Hamfest at Madison
Apr	12	Hamfest at Rockford
Apr	13	Megacycle Club meeting
May	2	Hamfest at Cedarburg
May	9	Hamfest at Manitowoc
May	11	Megacycle Club meeting
Jul	11	Hamfest at Oak Creek
Jul	18	Hamfest at Eau Claire
Oct	11	Hamfest at Waukesha

* Note change

Respectfully submitted:
Arne, KA9ZPY

Please use the form at the bottom of this page to renew your membership in the Racine Megacycle Club. The same form may be used to pay both your RMC and Lakeshore Repeater dues. □

One-Way Broadcasting and Bulletins - Are They the Same Thing?

Guest Editorial by
Mark Thompson, WB9QZB
P. O. Box 357
Mount Prospect, Illinois 60056

Last month in this editorial column, we discussed ham radio censorship. The result was the censorship of the editorial on the Chicago area ChicagoLink net and the discontinuation of the net. Obviously, we hit too close to home. Well, we're back again this month, regardless of the censors in ham radio.

The topic for this month is "One-Way Bulletins and Broadcasting - Are They the Same Thing?"

Recently, there has been a lot of controversy on the packet BBS network regarding the WA3QNS situation. Many have discussed censorship of packet bulletins by SysOps: What's legal for a packet bulletin; what one can send in packet bulletin; whether packet bulletins are legal at all; and whether there has been a change in FCC policy. In fact, Dave Sumner, K1ZZ, Executive Vice-President of the ARRL has even written an editorial about this in the "It Seems to Us..." column in the March 1991 issue of *QST*, and the February 6th, 1991 *ARRL Letter* discusses this issue. The packet network has been abuzz with further discussion of this

issue.

Well, there's good news. The FCC Rules have not changed. They've just started enforcing the rules that are on the books. The problem with WA3QNS's bulletin is that it was apparently commercial in nature, and did not have anything to do with Amateur Radio.

Mr. Sumner, I believe, made an unfortunate mistake when he mixed two very different issues in the same editorial, "Broadcasting" and "One-Way Bulletins". There is not necessarily any linkage between these two topics. They may occur simultaneously, but they don't have to.

In the WA3QNS situation, I believe that the central issue was "one-way bulletins", not broadcasting.

A ONE-WAY transmission as an information bulletin is legal ONLY if the message is directed only to amateur operators, consisting solely of subject matter of direct interest to the amateur service. This means that most bulletins on packet are still LEGAL. Some have claimed that, since packet BBSs must re-transmit bulletins to each other, that that is a two-way communication and not subject to the one-way bulletin restrictions. Perhaps, but the intent of the sender is clearly to send a one-way bulletin regardless of the mechanism involved.

What is ILLEGAL are bulletins that aren't related to Amateur Radio, with topics such as earthquakes; astronomy; politics; religious views; space missions unrelated to ham radio; etc.

While this does limit somewhat the scope and topics of one-way bulletins, it is still legal to discuss non-ham related topics in a two-way conver-

sation via any mode, including packet.

Given the nature of the packet mode, broadcasting with the intent to reach the general public is not really feasible. On the other hand, had WA3QNS made his editorial over a 2-meter repeater, it very well might have been construed as broadcasting.

So, the bottom line is keep sending out those ham radio-related bulletins that aren't of blatant commercial nature. Let's get over the fear, and keep the packet network flowing with valuable information.

The issue of what is legal as a "one-way bulletin" and who is responsible for it needs additional clarification from the FCC. There is a movement currently to make the sender of a bulletin the responsible party, and not the packet BBS Ops who carry that bulletin on their BBS.

You need to write your ARRL Director and Vice-Director today and express your ideas regarding this.

If you want to hear the RAIN Dial-Up Service, including my editorials, you can call (708) 299-INFO. The RAIN Dial-Up is updated weekly. See you next month.

73, Mark, WB9QZB

Packet Address - WB9QZB @ KB9DIP.IL.USA.NA

The Mathuselas of Editors

The Wisconsin Association of Repeaters Newsletter has been edited and published by Dave Knaus, WA9POV of Milwaukee, for over 15 years. Dave is asking if someone else in WAR with the ability and resources can take over the task. The *Badger State Smoke Signals* has been edited by K9ZZ for over 22 years. Jim only asks for more news, photos, and stories. Both Jim and Dave deserve many thanks for their volunteer service to Amateur Radio. Be sure you help them when you can.

- Rich Regent, K9GDF

Let's not forget Frank Guth, W9BCC, who easily "out-Mathuselad" both of us. Frank edited and produced Watts Snoo for the Central Wisconsin Radio Amateurs at Stevens Point for more than 25 years!
- K9ZZ

RACINE MEGACYCLE CLUB DUES 1992

CALL _____ *

NAME _____

ADDRESS _____

CITY _____ STATE _____ ZIP _____

RETURN WITH A CHECK FOR \$11.50 (incl. our club News Letter BSSS)
made payable to: RMC
Send to: RMC
P.O. BOX 3
RACINE, WI. 53401

* need not be licensed / must be interested in amateur radio

As a service to our members:
Save time and postage. Make your check payable for \$26.50 and we will forward your LAKESHORE REPEATER dues.



WB9QFW 2-Meter Repeater 146.07-.67 and Club Station

P. O. Box 847 • Plover, WI 54467

The meeting was called to order by our President, Art, N9BCA, at 1930 hours. There were 24 members present, the roll being as follows:

Art Wysocki	N9BCA
Mike Smith	N9IAT
Jim Benak	KA9ACE
Joe Larson	N9JW
Mary Eiden	KA9FAS
Mike Eiden	WD9JID
Gene Kroll	KE9MA
Debra Kroll	N9EIL
Jeremy Krueger	KB9AWP
Scott Jasper	NE9U
Ray Dix	KF9BG
Frank Podach	N9JQR
Paul Nelles	K9DB
Dave Olson	N9JQU
Wendy Duesterhoeft	KA9WEQ
Mike Pagel	KA9LAQ
Joe Mangal	KA9TTU
Jim Tuszka	N9MEB
Gordon Miller	KE9IA
Joe Omernik	N9CGV
John Kinney	KF9FI
Ron Howe	NJ9H
Brian Howe	KA9YJJ
Mike Urban	KB9GXV

multiple by-pass surgery. We were happy to hear that he is progressing well, and should be home shortly.

Joe, N9JW, presented a summary of the recent testing sessions held in Point. Several people became new novices or technicians or upgraded-one going from "Hopeful" to Advanced in during one session. Congradulations to all those who passed.

Mike, KA9LAQ, outlined the problems he was encountering in trying to update the autopatch numbers on the .67 machine. After a successful "failure" demonstrating the procedure, he asked for our blessing to attempt a hard reset of the system to see if that would cure the problems. After some discussion, he was given the go-ahead to try.

Jim, N9MEB, reported that he had checked out the system, and had found all areas within acceptable limits.

Joe, N9JW, handed out a list of equipment owned by the club and the replacement costs to show just what we would be insuring when all the serial numbers are collected.

Discussion then turned to the U.W.S.P. wildlife antenna, and what alternatives were available to us. Ray, KF9BG, said that only the booms might be salvagable. While rebuilding is going to be considered, we were asked to watch for used 2 meter antennas for sale, since the University's wildlife

frequencies are close to ours. What we are looking for are two beams with at least 5 elements, phasing harness, and cheap - any ideas??

Mary, KA9FAS, reminded us that the annual banquet is fast approaching, and that anyone planning to attend to make reservations with her by 3 Jan. '92 so that final details can be taken care of before the last minute. The banquet will be at the Blue Top Restaurant on 8 Jan. '92. The cost will be \$8.50 per person for a family-style meal of chicken, ham and meatballs. Attitude adjustment and eyeball QSO's start at 6:00 (1800 hrs), with the meal to follow at 7:00 (1900 hrs). Mary can be reached on packet through her mailbox (WD9JID), W9IHW, or by phone at (715) 344-0885.

WISTE-1 was the next topic brought before the club. As it stands now, WISTE-1 is "owned" by different individuals - at least 3 by rough count. Since this system provides a service to all in the area, it was proposed that the club consider possibly taking over the ownership of this system. After much discussion, it was moved and seconded to buy the system and bring it into the club's inventory.

Finally, Paul, K9DB, provided the club with info on the upcoming Winter Special Olympics Games, to be held in the Wausau area on Jan. 24-25, '92. Any volunteers would be welcome, also, anyone willing to try using packet or ATV to pass info to various areas of the games.

A quick announcement that the program for the FEBRUARY meeting will be John Witkowski, who will talk about the hobby of SWLing, ended the meeting at 8:38 pm (2038 hours).

After a short break, Mike, KA9LAQ, then gave a demonstration of a "simpler" method of soldering PL-259 connectors to coax. It worked slick as a whistle, and should be of great help to those of us who dread the chore of soldering connectors.

Hope to see all of you at the banquet in January - it will take the place of our regular meeting.

73 de KA9ACE

WHOOOPS!!! Hold the presses! A last minute break in history - Joann Dix received her call today (14 Dec. - six weeks after passing her test), and is now N9NOG. Nice call for this time of year. □

Taylor County Area Amateur Radio Club

Rolland Walty, W9LEE, Secretary

W4117 Highway 102 • Westboro, WI 54490

Next regular meeting January 9, 1992, at 7 p.m. in the Taylor County Courthouse Annex, corner of 2nd and Ogden, Medford, WI.

Election of officers will be held. If you don't want to get elected, be sure to come and defend yourself!

Dues for 1992 will also be payable January 1, so dig down and fork over!

Meeting Minutes December 12, 1991

Meeting was called to order at 7:15 p.m. by President N9GEN. Members present were N9GEN, W9QHI, N9GHZ, N9IDW, N9LHY, KE4FE, and W9LEE.

Minutes of last meeting were read and approved. No treasurer's report.

The repeater is now operating on the old equipment. The Motorola units have been returned at the dealer's request. The 911 emergency calling is now operational on the autopatch, thanks to N9GHZ.

April 11 has been picked as the date for the next VEC tests to be given in Medford. As soon as arrangements have been confirmed, a notice will be sent to BSSS for publication.

N9GHZ reported on the recent Abbotsford Christmas Parade, and distributed certificates of

appreciation for those who assisted with communications during the event. A brief discussion of possible improvements for next year resulted in a few suggestions for consideration by the parade committee.

KE4FE offered a transceiver to try as a repeater receiver to see if it would be any improvement over the present unit. Offer accepted, provided someone would volunteer to do the installation.

No other business. Meeting adjourned at 8:12 p.m.

Rolland Walty, W9LEE, Secretary

Clark/Taylor County Area Amateur Radio News

*By Mike Schoenfuss, N9GHZ
P.O. Box 401
Abbotsford, WI 54405-0401*

Congratulations To....

► Tim Primeau, KA9MSN, of Curtiss, who graduated this past June from UW-Platteville with a degree in radio and television broadcasting. Tim is now residing in Madison, and working as a news

cameraman/mini-cam operator for the Channel 15 television station in Madison. Tim can be contacted at 2922 Ashford Ln., #8, Madison, WI 53713, phone (608) 274-4287.

► Orville Lieders, WH6BVT, of Colby, who now holds an Amateur Radio license. Orville apparently passed his exams while in Hawaii, in 1988 or '89, and holds a Novice Class license.

► Stan Pekol, N9MHV, of Neilsville, who now holds an Amateur Radio license. Stan is active on 2 meters, and can be heard on the Medford repeater. Stan is the nephew of long-time Amateur Ed Pekol, W9FPE, of Willard, Wisconsin.

► Ed Pekol, W9FPE, of Willard, Wis., who celebrated his 74th birthday this past August and is still going strong!

► Michael Brennan, N9MCH, of Neilsville, who now holds an Amateur Radio license. Mike went from no license to Extra Class in about four months' time! He qualified for a Technician Class license with 5 WPM code endorsement on April 27, 1991, at a Marshfield VE test session. He upgraded to General Class with a 20 WPM code endorsement on May 18 at another Marshfield VE test session. He upgraded to Extra Class on July 27 at the VE test session at the Eau Claire Hamfest.

Mike is on 2 meters and the HF bands. He is a Circuit Court Judge for Clark County.

► Walt Lang, N9LIE, his XYL Bonnie, N9MAC, and Clyde Lundgren, N9LHY, all of Sheldon, Wis., who now hold Amateur Radio licenses.

Welcome To....

The following NEW (1991) members of the Taylor County Area Amateur Radio Club:

Brian Kostick (KB9HCT), Withee; Rich (N9MEH) and Jo (N9MEI), Jenneman and their daughter Amanda Spurgeon (Associate Membership), of Stanley; Mike (N9LIF) and Sharon (N9LFC)

Harris, of Merrill; Clyde Lundgren (N9LHY) Sheldon; Walt (N9LIE) and Bonnie (N9MAC) Lang, Sheldon; and Ed Pekol (W9FPE), Willard.

147.75/147.15

W9QHI/R Medford Repeater

The two Motorola Radius mobile transceivers, which were being used on the repeater as a receiver and transmitter on a trial basis for the past month or two, were removed on December 9 and returned to Northway Communications in Wausau.

Some clarification is required to comments made in the November 14 Taylor County Area ARC meeting minutes that appeared in the December, 1991, issue of *BSSS*.

It is true that the transceiver being used as a repeater transmitter was shutting down after heating up following lengthy transmission periods. As soon as it would cool down, the transmitter would come back up to full power. It should be noted that this was a 45-watt transmitter, and that the Radius mobile is NOT normally designed to be used as a repeater transmitter. With proper cooling and ventilation, it WILL function adequately as a repeater transmitter, without shutting down during periods of extended key-down time.

Unfortunately, the radio being used on the repeater was NOT set up with the proper cooling and ventilation as per instructions from the Motorola service technician, which is why the transmitter continued to shut down on us. Also, the primary reason why the club is looking for a comparable

receive-only unit is NOT because we were not pleased with the performance of the Motorola Radius unit, but because the club simply cannot afford the purchase of a new Radius at this time. At the November, 1991, meeting, it was suggested that the club pursue the possibility of purchasing a USED Motorola Radius radio, or some other Motorola-brand receiver, with specifications at least equal to the Radius unit.

With the Radius units installed, the Medford repeater was performing better than it has ever performed since it first went on the air in 1979. Not only was it hearing better (receiver), but it was being heard better as well (transmitter). Base stations, and even some mobiles, were getting into the repeater from locations such as Wausau, Marshfield, Ladysmith, Tomahawk, Phillips, and Park Falls. □

Mancorad Radio Club

Lou Maylander, KA9ZQF, Secretary

P. O. Box 204 • Manitowoc, WI 54221-0204

Meeting Minutes December 11, 1991

Treasurer's report accepted as read by George, N9BCX.

Minutes from the general club meeting of November 13 accepted as printed.

UPCOMING SPECIAL EVENT!! Mancorad will operate W9DK while aboard the maiden voyage of the car ferry from Ludington, (MI) to Manitowoc. This event is scheduled for May 15th, however there has been no finalization of a commitment as yet!

FINAL REPORT ON THE QSL PARTY FOR THE U.S.S. COBIA SPECIAL EVENT: Vice-President Chuck, N9KGL, reports getting over 400 QSL cards. Thanks to all who made contact with the sub, and thanks to all the club members who participated in the actual event or QSL party.

SMOKE SIGNALS: John, NZ9Z, and the author (Lou, KA9ZQF), finalized the mailing list of all dues-paying members to receive the January issue of *Smoke Signals*. Discussion followed regarding the distribution of the additional 15% additional copies. Plans are to send to local High Schools and Junior Highs, with letters of introduction.

President John, WB9ESM, reported that work on the club repeater (01/61) appears to have been successful. President John, WB9ESM, reports that there is the possibility of having a reverse autopatch and time and date functions activated. Discussion also focused on relinquishing of some the double-digit macro numbers to be secured for repeater

functions. Small cards with dues-paying members' macro numbers will soon follow.

A Technical Repeater Committee was established with Board Members President John (WB9ESM), Ron (WS9X), Vice-President Chuck (N9KGL), Bob (N9LVU), and Whitey (WW9P).

CHRISTMAS PARADE: The Mancorad Emergency Communications Vehicle made an appearance in the city's Christmas Parade. President John, WB9ESM, critiqued that a greater distance should have been left between parade floats to allow for a more complete description by the local cable TV announcers.

The Board requested that the old repeater controller be returned to the club room for inventory and the membership quickly agreed.

MAY HAMFEST: The membership endorsed the Hamfest, to be held on May 9th, at the Expo Grounds. The current committee includes Bob (N9LVU), Ron (WS9X), and club Secretary Lou (KA9ZQF). Club membership asked that a budget be presented at the next general meeting. Flyers have been made, and will be printed in mass quantities. Door prizes are being sought, and commercial vendors will be contacted. Plans are in the making to secure a reduced rental price on the hall.

CHRISTMAS PARTY: Dan, N9FVZ, reported that the club's Christmas Party will be held at the Cedar Ridge Restaurant (I-43, Exit 164, or Hwy. 147 to Maribel), on January 25th, 1992. The meal will be family-style chicken and ribs for \$6.75 per person, excluding tax and tip. All payments are to be made in advance by contacting the club's treasurer, George, N9BCX, at (414) 794-1767, or

Welcome Aboard!

The staff of *Badger State Smoke Signals* welcomes the newspaper's newest participating club, the Mancorad Radio Club, of Manitowoc, Wisconsin. We are hopeful that Mancorad's membership will enjoy our humble offering each month, and that our working relationship will prove to be long and mutually beneficial!

by writing to the Mancorad Radio Club, P.O. Box 204, Manitowoc, WI 54221-0204.

A motion was made by Bob, N9LVU, that the club purchase two sets of the complete ARRL publications, and designate one for club room use and the other as a donation to the local library. (The club already has \$60.00 donated by individual members allocated to this cause, and would gratefully accept further donations.) The motion was amended that the books not be allowed to leave the club room, and was seconded by John, NZ9Z. Motion carried as amended.

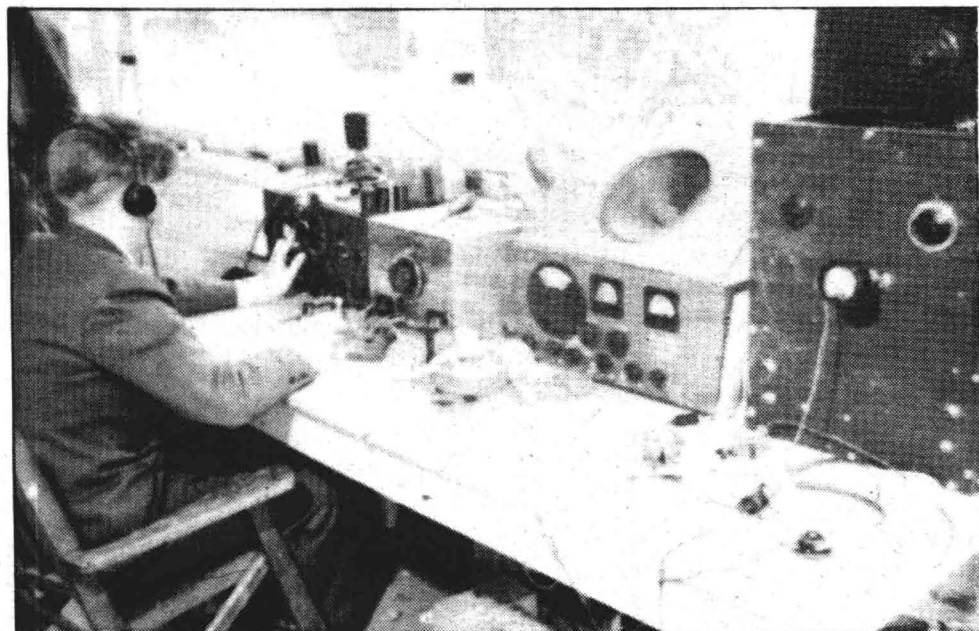
President John, WB9ESM, reported that he has been appointed Emergency Coordinator of Manitowoc County by the ARRL. A motion was made that President John also be elected as RACES officer. Skip, KE9LK, seconded the motion. The motion carried. Vice-President Chuck, N9KGL, volunteered to be assistant. Plans were made to contact the Director of Manitowoc County's Emergency Government regarding the appointment.

FINALLY!! The entire membership of the Mancorad Radio Club want to wish all the readers of *Smoke Signals*

*Happy Holidays and
a Prosperous New Year!!*

*Respectfully submitted:
Lou Maylander, KA9ZQF, Secretary*

Four Lakes Amateur Radio Club Field Day, Circa 1939



These photos, taken around 1939, show the Field Day operation of the Four Lakes Amateur Radio Club of Madison, with two more Field Days to follow until all Amateur Radio operation ceased for the duration of the looming World War II. The club's call sign for this Field Day was W9HMG; the club now holds the call sign W9JZ. In the photo at



left is a young Art Saboe, who probably then held his long-time call, W9LNM; his call is now W9ZM. These photos were submitted to *BSSS* by Francis Drake, K9EBL, whom we thank. They were taken by Ralph Marquardt, W9FTG, Sauk City, now a Silent Key. □

FCC to Increase its Inspections

Next year will see the FCC increase the number of inspections of commercial and broadcasting facilities, and with that comes a stern warning: the engineers will be looking at towers. Already in this area of the Pacific northwest the FCC has been looking at commercial towers with a Global Positioning System Receiver, checking to see if the coordinates noted on the station license are in agreement with the GPS device. The situation is even more critical when it comes to tower lighting and related safety measures. The FCC has made it very clear that in the event they inspect a facility and find a tower violation, every licensee on that tower will be fined!

If you operate an amateur repeater system on a commercial tower, especially one that has marking or lighting requirements, you had better make certain that the structure is in full compliance and that it is kept that way. You cannot delegate this responsibility to another person even if you are getting tower space free of charge. Several amateur repeater stations around the country have already found out that the new FCC initiative into tower compliance has the teeth to bite into hams with ease.

- Clay Freinwald, K7CR, in *Westlink Report*, 12/13/91

From the Editor

Your editor has always thought that law in the United States was based on one being responsible for one's own actions. The FCC, in its infinite wisdom, has cleverly found at least two ways to make almost everyone responsible for the actions of one individual!

The first is, of course, making every occupant of space on a tower "legally" responsible for the failure of its owner to maintain the tower properly with regard to lighting and marking. Doesn't this strike you as more than just a little odd, dear reader? Of course, it is a little less strange when one considers the added monies the Commission can dump into the Treasury of the United States this way. When the time comes for the FCC to ask Congress for its operating stipend, they can show they have helped to enrich the country, and so should get all the budget money for which they ask.

The second method is to levy "forfeitures" against system operators of packet radio bulletin boards for any message which may not stand the scrutiny of the Commission. A message originates from one station, but if the FCC decides it to be in violation of the rules governing the Amateur Radio Service, it nails the operators of ALL the systems through which the message passes. This exactly the same scenario as a driver operating his or her vehicle with a headlight burned out, and carrying several passengers. The driver gets the citation, but, using FCC's logic, all the passengers should be cited as well, shouldn't they?

Packet radio is automatic! It is impractical - or even impossible - for every SysOp to read every message flowing through his BBS. The automatic nature of packet is what makes it an ideal way to move high volumes of traffic with (usually) great efficiency and speed. But, still they punish everyone for the illegal action(s) of one person. Ah, but by so doing, they rake in lots more bucks. It seems that the principle of individual responsibility goes out the window when hauling in the dollars is involved.

The rules, as currently written, allow the FCC to do exactly what they are doing to packet BBS SysOps. There *may* be some hope, though: Several petitions for rule making have been filed to correct this silly situation (one was filed by Doug Smith, W9WI, who was a BBS SysOp in Madison until he moved a couple of years ago). Let us hope the FCC will decide to make the station which originates an "illegal" message the *only* responsible party, which is as it should be.

Westlink Report carried a story after the San Francisco earthquake a couple of years ago that more than 80,000 pieces of traffic flowed smoothly into that area by packet. Now, with the FCC seemingly obsessed with SysOp bashing, that efficient traffic flow is much less so. How in the world could the BBS SysOps in San Francisco have possibly had time to read 80,000 messages to be

certain that their content was "correct" before allowing them to continue their journeys?

So, dear reader, unless there is a return to common sense, and unless raking in major dollars

becomes a lesser priority (not likely), the next few years may see some interesting developments in FCC's enforcement procedures, as they find more ways to make more people responsible for the wayward ways of individual amateurs. □

Northern Wisconsin Radio Club

Steve Hart, KA9OMC, Secretary

- Since 1923 -

Route 1, Box 54 • Knapp, WI 54749



Greetings, NWRC members and guests.

The last meeting of the NWRC was held on November 26 at the Peppermill Restaurant in the Thunderbird Mall in Menomonie. President Kenny, KE9CS, conducted the meeting. Minutes were read by Secretary Steve, KA9OMC. Balance at this meeting was \$94.00.

Old business included a preview and discussion of the club's *Who's Who Book in Amateur Radio*. The price has been set at \$15.00, and includes a compilation of pictures from the previous books in 1953, 1960, 1973, and the new collection from 1991. This printing features an in-depth interview with and is dedicated to Silent Keys Victor Hintzman (W9WDK) and Jerome Stewart (W2GFK), with a special tribute to the late Phil Ruehl (K9HJT). Orders can be placed through the secretary.

New business discussion included a mention of the HCJB Special Event activity, and the club voted to hold a club auction in Eau Claire on February 25.

Steve, KA9OMC, offered a Field Day site for 1992 at his farm near Knapp.

A program offered by Tom Johnson, N9KMZ, Dunn County Emergency Services, was given by stand-in President Kenny, KE9CS. The program included a video tape and discussion of participation in the SET drill, held in Colfax on October 12. The drill involved an explosion and fire at the fertilizer

plant, and both Ken, KE9CS, and Arlene, KF9CU, were available at this event, along with Tom, N9KMZ. Our thanks to all three for their help on this program.

The next meeting of NWRC will be January 28 at the Peppermill Restaurant in the Thunderbird Mall in Menomonie. Meeting time is 7:30 p.m., and we are in need of a program. Any ideas?

Local Amateur News

- The St. Croix Valley Radio Amateurs have moved the 145.13 MHz W9AVX RACES repeater from Baldwin to five miles east of Hudson. The system will be receiving further upgrades in the near future. The SCVRA also operates the 147.33 MHz repeater at Baldwin.

- The Red Cedar Repeater Association's WB9YMB repeater at Menomonie (146.01/61 MHz) has announced, pending successful fundraising, that it will put a crosslink remote receiver west of Knapp to improve its western coverage of the existing system located near Colfax. Their goal is to raise another \$1200.00 before equipment can be installed. Contact the RCRA in care of Steve Hart, Route 1, Box 54, Knapp, WI 54749.

NWRC Secretary/Treasurer
Steve Hart, KA9OMC

RFI Position Reaffirmed

Continued from front page

"Because most users of home electronic equipment do not receive such interference, we do not wish to impose the additional costs associated with reduced susceptibility on all users of such equipment, including millions of users who would not benefit.

"Likewise, it is not reasonable to place the burden for resolving all interference problems on amateur service licensees. Congress recognized that electronic equipment manufacturers also have a responsibility to design properly their equipment to prevent interference. We believe that the Commission's Rules properly reflect Congressional desires.

"The issue of interference to home electronic equipment is being addressed by industry. A committee has been formed under the auspices of the American National Standards Institute [ANSI] to develop, voluntarily, standards to reduce the susceptibility of this equipment to interference. The Commission's long-standing policy, as well as that of the Federal Government in general, is to rely on private industry voluntary standards whenever possible.

"At our encouragement, the Electronic Industries Association (EIA) developed, in 1984 and 1987, two susceptibility standards for television

receivers. These standards were developed using (ANSI) procedures. Recent figures provided by the EIA indicate that virtually all new color televisions and VCRs voluntarily comply with these standards.

"Additionally, the number of complaints we receive about interference to home electronic equipment has dropped significantly since 1982 (emphasis added).

"Earlier this year, the Telecommunications Industry Association adopted a standard for telephone terminal equipment that contains product goals for electromagnetic interference susceptibility. In addition, international standards on interference susceptibility are being developed for a wide variety of electronic products. Although compliance with these standards is voluntary, we expect their development will spur electronic equipment manufacturers to consider potential interference problems when designing their equipment.

"Interference to the type of electronic equipment you mention in your letter does not give the Commission a basis to restrict the operation of your neighbor or modify his license Additionally, the Communications Act grants a station licensee certain rights, such as a right to a hearing, before the Commission (sic) can modify a station license.

"Based on the above, we conclude that your proposal is not in the public interest and does not warrant consideration by the Commission."

- The ARRL Letter, 12/19/91

TROYER *REXALL* DRUGS

JACK D. TROYER, R. PH. - DAVID M. FUHS, R. PH.

"Good Health is our Business"

WE MAINTAIN A COMPLETE RECORD OF YOUR FAMILY'S PRESCRIPTION PURCHASES

106 4th Avenue
Baraboo, Wisconsin

Phone 356-4964

Darrow's

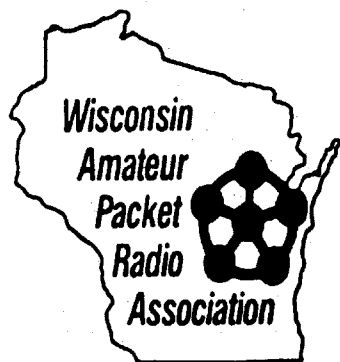


CHECK OUT OUR
EVERYDAY
LOW PRICES

DARROW'S
COUNTRY MARKET

TOTAL DISCOUNT FOODS
935 8th Street • Box 90
Baraboo, Wisconsin 53913
356-2106

We Buy Aluminum Cans



THE WISCONSIN PACKETEER

Wisconsin Amateur Packet Radio Association (WAPR)

William Schroeder, W9ZBD

4247 Forest Point Drive • Rhinelander, WI 54501

Steve Loeffler, WB9ZRE, Editor, 123 W. Oshkosh St., Ripon, WI 54971

Next WAPR Meeting.....

The next General Meeting of Wisconsin Amateur Packet Radio Association will be held on January 11, 1992 at the Waukesha Expo Center, the site of the West Allis Radio Club's Mid-Winter Swapfest. Meeting time will be at approximately 10 AM.

Dan - WB9TYT

WIGBAY Node Turned Off.....

KA9WPG has turned off the WIGBAY node in order to eliminate the extra RAM overhead needed to operate the node on his BBS computer. Area users can still navigate thru the Green Bay area by using either WIDC or WISHE nodes.

Answering "For Sale" Bulletins..

While it has been commonly accepted in the Amateur Community that "Wanted" and "For Sale" type Bulletins are not illegal to send, it has been determined & accepted that answering these Bulletins or Ads as being illegal... To answer these Ads is considered business & you should answer them via routes other than Amateur Radio, ie, Packet Messages... Please use the U.S. Mail, or the Telephone to conduct your business.. Please DO NOT put the License of your BBS Sysop in Jeopardy by sending Business type messages/Bulletins via Packet..

Dan - WB9TYT

Ground-loop Hum fix for PK-232.....

Ground-loop hum experienced when connecting the AEA PK-232 series to several transceivers can be eliminated by adding a 1N914/1N4148 silicon switching diode in series with the audio line from the transceiver. AEA's technical service department suggests placing an isolation transformer between the radio and the TNC. Their suggestion has proven totally useless. Save your money, install the diode and enjoy packet!

Decoding SARA Telemetry Data

According to FINWK, you CAN copy SARA with a PK-232 if you go into transparent mode after setting the ASCII mode at 300 baud. I suggest the following sequence of commands:

```
VHF OFF
WIDE ON
ASCII
AB 300
T
```

Don't forget to send a 'break' to the pk-232 to get out of the transparent mode. Thanks to all those that replied that they are reading the SARA bulletins.

TCP/IP on 28.103.....

If you'd like to try 300 baud HF TCP/IP, tune in to 28.103. I have a port running most of the time there, with pelchl NET. My tcp/ip address is 44.16.0.21 wd6ehr wd6ehr-3 wd6ehr.ampr.org10 meters has been wide open lately, and net should do just fine, even at 300 baud.

Mike wd6ehr@n6yn.#soca.ca.usa

wd6ehr.ampr.org!wd6ehr@puffin.

UUCP7921 Wilkinson Avenue;

North Hollywood CA USA 91605-2210 (818) 765-2857

Consecutive node DX record?.....

While the state of our packet networks is not the greatest, we are pleased to announce that they DO work after a fashion. Indeed, on the 11th of December, 1991, Alan MacPherson, VE3KYZ has established what may be an all-time world node record. From his QTH in Hamilton, Ontario, he connected through a total of 37 nodes to the N700 TNC near Sierra Vista, Arizona!

Alan reports: "I was pleased, indeed to see the N700 prompt come up but just as I sent subject: MADE IT!....it disconnected somewhere!" While part of Alan's path included the Canadian satellite link between Ottawa and Calgary, his achievement is nevertheless noteworthy in that it consisted of 37 consecutive nodes.

VE3KYZ's connect path was as follows:
HMLTON/KYZLNK/#DUNV4/#HNL4/#HNL2/#TORO2/
TORONT/BARRIE/LKBAYS/TORHIL/PEM/CAPITL/
#HYDRA/OTTAWA/OTTSAT/OGYSAT/ABCGYV/ABCLM/
SWT/KINGS/BZN/SKY/REX/BYI/SNOW/ELY/MLF/SGU/
LAS/#LAS6M/#KGM6M/#TWSR/#PHX/#PHX96/#TUS/TUS/
NJ7P-2 (SVASW)/SVALAN/N700.

This route took Alan north from his location near Niagra Falls up to Ottawa thru the OTTSAT gateway to Calgary, Alberta. Then trended down through Montana, cut through the south-eastern portion of Idaho, thru Utah, into Nevada, thence east into Arizona.

Alan says his next challenge will be to actually leave a message on the TNC and get a "message saved" prompt back! Jack - N700 @ NJ7P.AZ.USA.NA

Dangerous Computer Virus.....

is an urgent forward from John McAfee:

A distribution diskette from a corporation calling itself PC Cyborg has been widely distributed to major corporations and PC user groups around the world and the diskette contains a highly destructive trojan. The Chase Manhattan Bank and ICL Computers were the first to report problems with the software. All systems that ran the enclosed programs had all data on the hard disks destroyed. Hundreds of systems were affected. Other reports have come in from user groups, small businesses and individuals with similar problems.

The professionally prepared documentation that comes with the diskette purports that the software provides a data base of AIDS information. The flyer heading reads - "AIDS Information - An Introductory Diskette". The license agreement on the back of the same flyer reads:

"In case of breach of license, PC Cyborg Corporation reserves the right to use program mechanisms to ensure termination of the use of these programs. These program mechanisms will adversely affect other program applications on microcomputers. You are hereby advised of the most serious consequences of your failure to abide by the terms of this license agreement."

Further in the license is the sentence: "Warning: Do not use these programs unless you are prepared to pay for them!"

If the software is installed using the included INSTALL program, the first thing that the program does is print out an invoice for the software. Then, whenever the system is re-booted, or powered down and then re-booted from the

hard disk, the system self destructs.

Whoever has perpetrated this monstrosity has gone to a great deal of time, and more expense, and they have clearly perpetrated the largest single targeting of destructive code yet reported. The mailings are professionally done, and the style of the mailing labels indicate the lists were purchased from professional mailing organizations. The estimated costs for printing, diskette, label and mailing is over \$3.00 per package. The volume of reports imply that many thousands may have been mailed. In addition, the British magazine "PC Business World" has included a copy of the diskette with its most recent publication - another expensive avenue of distribution. The only indication of who the perpetrator(s) may be is the address on the invoice to which they ask that \$378.00 be mailed:

PC Cyborg Corporation
P.O. Box 871744
Panama 7, Panama

Needless to say, a check for a registered PC Cyborg Corporation in Panama turned up negative.

An additional note of interest in the license section reads:

"PC Cyborg Corporation does not authorize you to distribute or use these programs in the United States of America. If you have any doubt about your willingness or ability to meet the terms of this license agreement or if you are not prepared to pay all amounts due to PC Cyborg Corporation, then do not use these programs".

John McAfee

Operating Tips - Addressing BULLETINS.....

How you "address" your BULLETIN is VERY important. If done right, your message will be forwarded to and read by the people you want to read it. If addressed improperly, it could just sit there on your home BBS forever, or be forwarded only to vanish later without a trace.

There are two parts to the address, the TO part and the AT part. In the example below the address is self-explanatory (but I'll explain it anyway).

ALL @ ALLUS [to] ALL [stations] at [ALL U.S. BBSs]

The word following the "@" symbol is called the "DISTRIBUTION" and almost all the "Full-Service BBSs" across the country accept the following KINDS of DISTRIBUTION:

ALL @ BBS (LOCAL) (Substitute your own local area BBS for "BBS")

ALL @ RTWIS (REGIONAL) ALL @ ALLUS (NATIONAL) (Not "USA" or "ALLUSA" or "US" or "NOAM" or "ALL")

"LOCAL" distribution includes all BBSs in your metro or geographical area.

"REGIONAL" usually means statewide but NOCAL and SOCAL are also good examples also. Check with your local sysop what's used for your area.

"NATIONAL" distribution means all BBSs in the country. While not all Full Service BBSs allow @ALLUS traffic, most areas served by such BBSs have one or more other BBSs which do allow them, so almost all areas are covered. There are other "distributions" (like AMSAT, ARRL and NASA) but those are used mainly by stations which supply the BBS networks with weekly or monthly bulletins and the BBSs use a slightly different routing in most cases when auto-forwarding such bulletins.

The "TO" part of the address can be used to

identify the kind of audience for which the message is intended. For example:

SALE @... Bulletins listing items for sale
 WANT @... To list items you want to find or buy
 NEED @... If you need equipment, parts, manuals
 HELP @... To solicit help on a specific subject
 INFO @... To pass along interesting or helpful technical information
 TIPS @... Bulletins offering operating tips (like this one) on ANYthing
 MODS @... Bulletins describing equipment modifications

This information is only related to BULLETINS. It does not apply to PERSONAL MESSAGES nor to NTS TRAFFIC, the other types of BBS messages.

There are other "TO"s you'll see on your local BBS, but the ones above are the ones most often sent by individuals on an occasional basis and the ones with which we seem to have the most problems. Follow the examples you see above and ask your local sysop for additional help and you can't go wrong.

The main thing to remember is to NOT invent your own addressing scheme or your messages might not get where you really want them to go.

Baycom 1.4 Documentation - In English

Are you aware that there is a copy of the 1.4 version of BAYCOM code that contains help information that has been translated into English as well as the 58 pages of documentation?

You can download it from the WA6RDH BBS at 916-678-1535 in CA. It sure it is nice to have a general idea of how the program works. Have you ever wondered what the KNAX command was all about? Well download the translated version and find out.

Baycom Hardware / Software Availability

Several amateurs have indicated an interest in the Baycom TNCs, but, did not know where to obtain the kits, software or parts. Here is a quick list of known sources:

TOM-3105 SOURCES

Future Electronics, Phoenix, Az.

A & A Engineering (Described in World Radio)
 Anaheim, Ca., 714-952-2114

N4PLK, Craig Rader, 385 Cherokee Court
 Altamonte Springs, Fl., 32701
 Author of the PMP article in 73 mag.

Active Components
 (address unknown)

MODEM KITS

N4PLK, Craig Rader
 Crawford Amateur Radio Society
 P.O. Box 653, Meadville Pa. 16335

A & A Engineering
 2521 W. LaPalma #K, Anaheim, CA. 92801
 (714) 952-2114
 Kit \$59.95, Asm \$89.95, (See 73 Mag Dec 1991)

Platinum Coast ARC
 Contact:
 Don Winn AF4Z, 1882 Barkley Ave
 Melbourne, FL 32935, (407) 254-9495
 Kit \$50.00, Assembled unit also available

SOFTWARE

Carl Ingerson, N1DXM
 RR # 2 Box 4266, Union, Me. 04862
 Include SASE mailer and formatted diskette

N4PLK, Craig Rader
 385 Cherokee Ct., Altamonte Springs, Fl. 32701
 Include SASE and formatted diskette

Wisconsin Nodes & BBSs.....

WAPR/WAR/ARRL Wisconsin Packet Coordination

Statewide List By City

Location	ST	Freq-Mhz.	Alias	Call	Type-Notes	Sponsor	Source
Antigo	WI	145.010	WIANT	K9MLD-7	N-NODE-TheNet	K9MLD	WAPR/WAR
Antigo	WI	50740	#ANT6M	K9MLD-6	N-NODE-TheNet	K9MLD	WAPR/WAR
Appleton	WI	145.010	WIAPP	KC9AA-4	M-PBBS-Netwrk	KC9AA	WAPR/WAR
Appleton	WI	145.010	APPBBS	KC9AA	M-PBBS-Local	KC9AA	WAPR/WAR
Bayfield	WI	145.010	WIBFD	NOELB-1	N-NODE-TheNet	NOELB	WAPR/WAR
Brown Deer	WI	145.690	WIBDR	KC9BK	M-PBBS-Local	KC9BK	WAPR/WAR
Brown Deer	WI	222.190		KC9BK	M-PBBS-Netwrk	KC9BK	WAPR/WAR
Burlington	WI	145.630	WIBUR	N9BYS	M-PBBS-LOCAL	N9BYS	WAPR/WAR
Burlington	WI	223.580	#WIBUR	N9BYS-3	M-PBBS-Netwrk	N9BYS	WAPR/WAR
Burlington	WI	446.100	#BURP	WB9TYT-4	N-NODE-TheNet	WB9TYT	WAPR/WAR
Chip. Falls	WI	145.010	WICFL	WD9HFT-1	N-NODE-TheNet	WD9HFT	WAPR/WAR
Delafield	WI	144.910		NB9C	D-DX-NetWork	NB9C	WAPR/WAR
Delafield	WI	223.480		NB9C	D-DX-CLUSTER	NB9C	WAPR/WAR
Eau Claire	WI	145.010	WIEAU	WOAIH-1	N-NODE-TheNet	WOAIH	WAPR/WAR
Freedom	WI	144.910		AA9A	M-DX-Network	AA9A	WAPR/WAR
Freedom	WI	223.480		AA9A	D-DX CLUSTER	AA9A	WAPR/WAR
Green Bay	WI	145.010		KA9WPG	M-PBBS-Local	KA9WPG	WAPR/WAR
Hayward	WI	145.010	WIHYR	KD9FC-1	N-NODE-TheNet	KD9FC	WAPR/WAR
Jackson	WI	144.910		WI9L	D-DX-NetWork	WI9L	WAPR/WAR
Jackson	WI	223.460		WI9L	D-DX-CLUSTER	WI9L	WAPR/WAR
Janesville	WI	145.070	WIJVL	KD9JK-3	N-NODE-MSYS	KD9JK	WAPR/WAR
Janesville	WI	145.070	WIJVL2	KC9PX-2	N-NODE-TheNet	KC9PX-2	WAPR/WAR
Lacrosse	WI	145.010	WILSE	WA9FIO-1	N-NODE-TheNet	WA9FIO	WAPR/WAR
Lodi	WI	145.010	WILOD	WD9ESU-7	N-NODE-TheNet	WD9ESU	WAPR/WAR
Lodi	WI	223.565	#LOD2	WD9ESU-9	N-NODE-TheNet	WD9ESU	WAPR/WAR
Lodi	WI	145.010	WILODI	WD9ESU-4	M-PBBS-LOCAL	WD9ESU	WAPR/WAR
Lodi	WI	145.070	WILODI	WD9ESU-4	M-PBBS-LOCAL	WD9ESU	WAPR/WAR
Madison	WI	145.010	MAD	WB9QHD-15	N-NODE-TheNet	WB9QHD	WAPR/WAR
Markesan	WI	144.970	WIGLK	KB9WC-7	N-NODE-TheNet	KB9WC	WAPR/WAR
Markesan	WI	446.675	#GLK4	KB9WC-8	N-NODE-TheNet	KB9WC	WAPR/WAR
Markesan	WI	221.315	#GLK2	KB9WC-9	N-NODE-TheNet	KB9WC	WAPR/WAR
Medford	WI	145.010	WIMED	N9GHZ-1	N-NODE-TheNet	N9GHZ	WAPR/WAR
Milwaukee	WI	145.090		WA9POV	M-PBBS-LOCAL	WA9POV	WAPR/WAR
Milwaukee	WI	446.100		WA9POV	M-PBBS-Netwrk	WA9POV	WAPR/WAR
Milwaukee	WI	14.107		WB9TYT	M-HF-PBBS	WB9TYT	WAPR/WAR
Milwaukee	WI	10.147		WB9TYT	M-HF-PBBS	WB9TYT	WAPR/WAR
Milwaukee	WI	145.690	TYT	WB9TYT	M-PBBS-LOCAL	WB9TYT	WAPR/WAR
Milwaukee	WI	222.190	HFBBS	WB9TYT	M-PBBS-Netwrk	WB9TYT	WAPR/WAR
Milwaukee	WI	145.610	WIMKE	WB9SMM-9	N-NODE-TheNet	ARES	WAPR/WAR
New Berlin	WI	145.090	NWB	WD9ANY	M-PBBS-LOCAL	WD9ANY	WAPR/WAR
New Berlin	WI	145.090	WINWB	WD9ANY-9	N-NODE-TheNet	WD9ANY	WAPR/WAR
New Berlin	WI	10.149		WD9ANY	M-HF-PBBS	WD9ANY	WAPR/WAR
N. Freedom	WI	145.010	WINFR	WA9SOU-2	N-NODE-NetRom	WA9SOU	WAPR/WAR
N. Prairie	WI	145.590	NPBBS	WA9KEC	M-PBBS-LOCAL	WA9KEC	WAPR/WAR
N. Prairie	WI	145.090	NPBBS	WA9KEC	M-PBBS-LOCAL	WA9KEC	WAPR/WAR
N. Prairie	WI	145.090	WIKEC	WA9KEC-2	N-NODE-TheNet	WA9KEC	WAPR/WAR
N. Prairie	WI	223.580	#NP220	WA9KEC-4	N-NODE-TheNet	WA9KEC	WAPR/WAR
N. Prairie	WI	446.100	#NP446	WA9KEC-3	N-NODE-TheNet	WA9KEC	WAPR/WAR
N. Prairie	WI	MATRIX	WIBBS	WA9KEC-10	M-PBBS-Netwrk	WA9KEC	WAPR/WAR
Onalaska	WI	145.010		W9LZQ-1	M-PBBS-Netwrk	W9LZQ	WAPR/WAR
Onalaska	WI	145.070		W9LZQ-1	M-PBBS-LOCAL	W9LZQ	WAPR/WAR
Onalaska	WI	145.090	LSE2	WA9FIO-2	N-NODE-TheNet	WA9FIO	WAPR/WAR
Park Falls	WI	145.010	WIPKF	NC9G-1	N-NODE-TheNet	NC9G	WAPR/WAR
Park Falls	WI	145.010		KA9EOK	M-PBBS-LOCAL	KA9EOK	WAPR/WAR
Park Falls	WI	145.010		KA9EOK-5	N-NODE-MSYS	KA9EOK	WAPR/WAR
Pittsville	WI	145.010	WIPIT	N9BQM	M-PBBS-Netwrk	N9BQM	WAPR/WAR
Plymouth	WI	145.010	WISHE	NF9R-1	N-NODE-NetRom	NF9R	WAPR/WAR
Plymouth	WI	223.480	#SHE2	NF9R-2	N-NODE-NetRom	NF9R	WAPR/WAR
Plymouth	WI	446.100	#SHEB	NF9R-3	N-NODE-NetRom	NF9R	WAPR/WAR
Pt. Edwards	WI	145.010	WIPED	W9IHW-4	N-NODE-PBBS	W9IHW	WAPR/WAR
Pt. Edwards	WI	145.690		W9IHW	M-PBBS-LOCAL	W9IHW	WAPR/WAR
Racine	WI	144.910	KS9K		D-DX-Network	KS9K	WAPR/WAR
Racine	WI	223.440	KS9K		D-DX-LOCAL	KS9K	WAPR/WAR
Rhineland	WI	14.111		W9ZBD	M-HF-GATEWAY	W9ZBD	WAPR/WAR
Rhineland	WI	145.010		W9ZBD	M-PBBS-LOCAL	W9ZBD	WAPR/WAR
Rhineland	WI	145.010	WIRHI	W9ZBD-3	N-NODE-TheNet	W9ZBD	WAPR/WAR
Rice Lake	WI	145.010	WIRIE	N9FHH-1	N-NODE-TheNet	N9FHH	WAPR/WAR
Ripon	WI	144.970		WB9ZRE-1	M-PBBS-LOCAL	WB9ZRE	WAPR/WAR
Sheboygan	WI	144.910	KR9S		D-DX-Network	KR9S	WAPR/WAR
Sheboygan	WI	223.480	KR9S		D-DX-LOCAL	KR9S	WAPR/WAR
Slinger	WI	222.190	#SLGH	WB9TYT-5	N-NODE-TheNet	WB9TYT	WAPR/WAR
Slinger	WI	MATRIX	WICONV	WB9TYT-6	N-Converse	WB9TYT	WAPR/WAR
Slinger	WI	145.690	WISLG	WB9TYT-7	N-NODE-TheNet	WB9TYT	WAPR/WAR
Slinger	WI	446.100	#SLGB	WB9TYT-8	N-NODE-TheNet	WB9TYT	WAPR/WAR
Slinger	WI	223.565	#SLG2	WB9TYT-9	N-NODE-TheNet	WB9TYT	WAPR/WAR
Spooner	WI	145.010	WISPN	KE6WF-1	N-NODE-TheNet	KE6WF	WAPR/WAR
Stevens Pt.	WI	145.010	WISTE	WB9QFW	N-NODE-TheNet	C.W.R.A.	WAPR/WAR
Stevens Pt.	WI	223.480	WICWRA	WB9QFW-2	N-NODE-TheNet	C.W.R.A.	WAPR/WAR
Sturgeon Bay	WI	145.010	WIDC	W9AIQ-1	N-NODE-TheNet	W9AIQ	WAPR/WAR
Tomah	WI	145.010	WICMY	N9BOE-1	N-NODE-TheNet	W9LZQ	WAPR/WAR
Waupaca	WI	145.010	#WAP1	N9BKJ-7	N-NODE-TheNet	N9BKJ	WAPR/WAR
Waupaca	WI	50.740	#WAP6M	N9BKJ-6	N-NODE-TheNet	N9BKJ	WAPR/WAR
Waupaca	WI	446.675	#WAP4M	N9BKJ-9	N-NODE-TheNet	N9BKJ	WAPR/WAR
Waupaca	WI	MATRIX	WAPBBS	N9BKJ	M-PBBS-LOCAL	N9BKJ	WAPR/WAR
Wausau	WI	145.010	WIAUW	N9CLE-1	N-NODE-NetRom	N9CLE	WAPR/WAR

Note: D=Digipeater, G=Gateway, K=KA Node, M=BBS, N=Network (ARRL Codes)

The Badger State Smoke Signals Shoppers' Guide

SWAPFESTS



**20th ANNUAL MIDWINTER
SWAPFEST**
WAUKESHA EXPOSITION CENTER
HIGHWAYS J & FT
WAUKESHA, WISCONSIN
JANUARY 11, 1992

1991 WINNERS
Martin Van Der Burgt, KA9MSR, Milwaukee
David C. Wright, WB9VOZ, Milwaukee
Robert J. Goemans, N9HAD, Madison

Both Sponsored By
THE WEST ALLIS RADIO AMATEUR CLUB, INC.
P. O. BOX 1072 • MILWAUKEE, WISCONSIN 53201

**HAM IT UP EVERY SPRING!
MADISON SWAPFEST**

April 5, 1992

Dane County Expo Center
Forum Building

Sponsored by MARA/WB9AER

P.O. Box 8890 (608) 249-7579
Madison, WI 53708-8890 Answer Machine

SOUTH MILWAUKEE AMATEUR RADIO CLUB

SWAPFEST 92

July 11, 1992
(Held every July)

American Legion Park
Shepard Ave. • Oak Creek, WI

(414) 762-3235 Extension 58
P.O. Box 102 South Milwaukee, WI 53172

Fox Cities Hamfest

Starlite Club, Hwy. 55 north of Kaukauna

HAMFEST INFO:

Don Baker
621 W. 7th St.
Kaukauna, WI 54130
414-766-3886

EXAM INFO:

Larry, KD9IA,
414-788-3823, or
Don, NB9J,
414-766-3886

**Lakeshore Hamfest
& Computer Swapfest**

Manitowoc County Expo

Intersection of Hwys 42-151 and I-43 on Cty Highway R

Saturday, May 9, 1992

For more information, call:
"Lou" - 414-682-2557 (Nights) "Ron" - 414-793-4733 (Nights)
"Bob" - 414-684-5352 (Nights) "John" - 414-682-9151 (Days)

ManCoRad Radio Club • P.O. Box 204 • Manitowoc, WI 54221-0204

PEORIA SUPERFEST

EXPOSITION GARDENS, PEORIA, ILLINOIS

September 19-20, 1992

LARGE FLEA MARKET - COMMERCIAL DEALERS - FORUMS
LADIES ACTIVITIES (SAT) - EXAMS (SUN)

GATES OPEN AT 6:00 AM - TALK-IN 146.76
FOR ADVANCE TICKETS: \$ASE PLUS \$5 EACH TO PEORIA
AREA AMATEUR RADIO CLUB, P.O. BOX 3508, PEORIA, IL
61612-3508 OR CALL (309) 685-6698 FOR INFORMATION

14th Annual

CWRA SWAPFEST

June 14, 1992 • 8 a.m. to 2 p.m.

UNIVERSITY CENTER, U.W. STEVENS POINT

Info: Art Wysocki, N9BCA
3356 April Lane

715-344-2984
Stevens Point, WI 54481

EAU CLAIRE AMATEUR RADIO CLUB

SWAPFEST

July 18, 1992

Chippewa Falls Fairgrounds

Lis Searing, N9EQR
(715) 834-1303

1129 McKinley Road
Eau Claire, WI 54701

HAMFEST SPONSORS:
THIS SPACE
IS AVAILABLE
TO ADVERTISE
YOUR EVENT.
FOR INFORMATION,
CONTACT KEN
EBNETER, K9EN.

PRODUCTS AND SERVICES

AES®... ★ New Location!

One of the World's Largest Ham Dealers right here in Wisconsin!

All Major Brands ★ Large Stock ★ Fast Service

AMATEUR ELECTRONIC SUPPLY®

5710 W. Good Hope Road • Milwaukee, WI 53223

Phone: (414) 358-0333 • Toll Free: (800) 558-0411

FAX: (414) 358-3337

HOURS • Monday thru Friday 9-5:30; Saturday 9-3



**Radio
Recyclers**

M,Tue,F... 10-5
SAT 10-2

USED AMATEUR RADIO EQUIPMENT

Neil Lawton WK9Q

414-383-9001

Buy • Sell • Consignment

3221 W. LINCOLN AVENUE • MILWAUKEE, WI 53215

FREE FREE

QSL CARD SAMPLES

*We carry a full line of
QSL Cards and related products.*

High Gloss Cards Fluorescent Cards
Economy Cards QSL Eyeball Cards
Personal Envelopes Rubber Stamps

Call or Write Today!!

The Little Print Shop

P.O. Box 1160 • Pflugerville, Texas 78660

(512) 990-1192

WA8FON

(404) 466-3241

N4YHM



Omar Electronics, Inc.

2130 Ga. Hwy. 81 SW
Loganville, GA 30249



Marc

A.E.A.
Alinco
Ameritron
Pro-Am
Comet

MFJ
Kenwood
Yaesu
Uniden
Daiwa

A.R.R.L.
Bench
Icom
Van Gorden
Connectors

715-644-2112

FAX: 715-644-2621

RICH'S SURPLUS

Route 2 • Stanley, WI 54768

"Your Discount Ham Source"

ARRL/Ameco/Artsci/Etc. Books
Alinco VHF/UHF line from \$249

Most items/brands available by order

Jo, N9MEI

Rich, N9MEH

Craig Henderson
N8DJB

Ph. (419) 352-4465
Hours: 10 - 5

C.A.T.S.

Rotor Parts and Repair

7368 S.R. 105

Pemberville, OH 43450

RECHARGEABLE BATTERIES

FOR: COMMUNICATIONS & TELEPHONE EQUIPMENT • PUBLIC SAFETY • PAGING
EMERGENCY • PHOTOGRAPHY • INSTRUMENTS & MEDICAL EQUIPMENT
OFFICE EQUIPMENT & COMPUTERS • TOOLS
ALSO AVAILABLE: ALKALINE, LITHIUM, MERCURY, SEALED LEAD ACID



CATALOG AVAILABLE

E.H. YOST & COMPANY

7344 TETIVA ROAD
SAUK CITY, WISCONSIN 53583
TELEPHONE (608) 643-3194
FAX # (608) 643-4439



RICHARD O. LUST, CAI
Certified Auctioneer/Broker
(608) 258-8880
K9APW

LUST AUCTION SERVICES

(608) 833-8335

7552 Pioneer Place

Verona, Wisconsin 53593

Statewide Service To Hams - Since 1975

Auctioneering Real Estate

**RHYME
SUPPLY
INCORPORATED**



122 EAST COOK STREET PORTAGE, WIS.

COMPLETE LINE OF OFFICE MACHINES - FURNITURE - COMPUTERS

TELEPHONE
608-742-3747-5371

KEN HUTLER

AF & RF CONNECTORS AND ADAPTORS • DC CABLES AND PLUGS • FUSES
POLICE SCANNERS • SHORT WAVE RECEIVERS • RADAR DETECTORS
METAL DETECTORS • CB RADIOS • AMATEUR RADIO RELATED ITEMS



TOWER ELECTRONICS

WHOLESALE TO THE PUBLIC

(414) 435-4855 1-800-662-3422

P.O. BOX 12631
GREEN BAY, WI 54307

2441 SOUTH BROADWAY
GREEN BAY, WI 54304

OPEN M-F 10-5

1/4 MILE SOUTH OF NATIONAL RAILROAD MUSEUM

VCR SERVICE

North Freedom Electronics
Same day service by appointment

Computers
Stereos
CD's

Musical Instruments
Auto Sound
CB's

Sorry No TVs
Hours Vary - Call Ahead

201 E. Walnut
Box 18
North Freedom, WI 53951

John Schmelzer
608-522-4366